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THE MASTERS OF FATE

SOPHIA P. SHALER

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FROM

Mrs. Charles Batchelder

THE MASTERS OF FATE

THE MASTERS OF FATE

The Power of the Will

BY

SOPHIA P. SHALER

NEW YORK
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1906

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INTRODUCTION

FOR the suggestion of this book, and for most of the scientific material contained in it, I am indebted to my husband. In his opinion, the whole field of invalidism in its relation to intellectual and moral development deserves a consideration which it has not hitherto received. His personal acquaintance with many youths who start in the race of life with a burden of grave disabilities resting upon them made it plain to him that the sense of their handicap was a load that needed to be lightened. It seemed worth while, therefore, to prepare, with special reference to this class, a brief statement of the achievements of noted persons who, under the stress of grave difficulties, have shown skill in marshalling their physical and spiritual forces to play the part of men.

Although, doubtless, willing to be credited with heroic potentialities, the invalid is apt to believe that he is being called upon by well-meaning helpers to play a part beyond his powers, and for this reason, if for no other, his education cannot well dispense with the example of such as have converted, as Emerson would say, their thyme and marjoram into honey; indeed, he needs the inspiration of all such strong personalities to gain spiritual momentum for the con-

duct of his own campaign. Furthermore, the victor in the day's race — the knight who has met and slain the dragon in his path — deserves to be considered not only because of the encouragement he may give to such as are tempted to abandon the field at the prospect of hard fighting, but for the honour of humanity as well.

Happily there are men of such Titanic force and originality of character as to be able, under all circumstances, to work out their own salvation unaided by the external world. The majority, however, are less inventive, and in many instances, having had their self-reliance and pride, so to speak, plucked out of them by the seemingly narrow destiny in which they are imprisoned, are glad to learn from the more masterful the secret of filling with sane and fruitful interests what promised to be a vast vacuity in life's stretches. These less self-determined characters are indeed often willing to follow closely the lead of the strong in spirit in the hope of escaping the so-called "discipline of consequences." In other words, to make the experience of another count for their own benefit in the school of life where the fees are notoriously heavy.

From among the varieties of men presented in these pages the reader may discover one or more who speak the word he was waiting to hear. Herbert Spencer, for instance, tells of the intellectual stimulus he got from physical exercise; Harriet Martineau,

of the beneficial effect of a particular environment; while others show the result of unspoken observances and ambitions, leaving one to infer how, of their infirmities, they made for themselves ladders. But beyond all this, the reader may meet some one in particular with whom he finds a personal compatibility so strong that it will go far towards making him a sympathetic friend; a friend capable of stirring up the virtue within him, so that he too may meet successfully the adverse circumstances of his lot, not merely in a cut-and-dried way, as if by contract, but with the freer grace that pleasure gives.

The fear of being a burden to those of his own household is often one of the heaviest afflictions that comes to the feeble of body, and while in a sense this cannot be avoided, yet he need not despair; for the poet tells us man is "master of his fate," and fulfils himself in many ways. Through the transforming power of the spirit the invalid may become, and often is, the very source whence flows serenity, courtliness, and the wisdom that is bred remote from the strife of life. Moreover, the care required to maintain the lives of feeble persons, the discretion as regards hygienic conditions, and the study of means whereby lives which hang as by a thread may be prolonged, has a large reflex influence upon the vigour of the strong. The effort to avoid the consequences of malady made necessary by the presence of feeble lives helps in a large measure the welfare of the

healthy, lifting them to a higher physical estate. Thus, not only in a moral but in a physical way are the conditions of the well-to-do in body and mind advanced by the care of the weak.

The class of educated men, especially those of the passing generation, has been, perhaps, more largely indebted to "Plutarch's Lives" for its moral attitude towards life than to any formal directions as to how a great man should comport himself. Our whole sympathetic nature responds to the story of personal adventure and self-conquest, and the truth clothed in flesh and blood is more convincing than any dry statement of possibilities. Moreover, it is hardly fair to deprive so painful a subject as disease of the saving grace of human interest. Beset by a multitude of counsellors (whose good advice in the end may be a veritable instrument of torture), those of impaired vigour need to become familiar with the things that have been done in the world of action, as a respite from the dreary chronicle of things which ought to be done in the sick-room.

The portraits used, by way of example, in these pages do not always follow a strict classification of maladies, but in most instances are introduced where they serve best to give point to the argument. Many more, indeed hundreds, might have been added to the list had it been deemed necessary to further enforce the lesson.

THE MASTERS OF FATE

CHAPTER I

INVALIDISM AND INTELLECTUAL DEVELOPMENT

IT was proposed some years ago in the Faculty of Harvard University that all applicants for scholarships should undergo a physical examination, in order that the trust fund at its disposal for the maintenance of indigent students should be given only to such applicants as might be expected to pay in fruitful work an adequate return upon the investment.

At first sight there seemed to be much in favour of this proposition. It is well known that the Government receives into its military schools none but the ablebodied. Furthermore, it was reasonable to suppose that the possession of health and strength was essential to the maintenance of that measure of activity required in the work of the world. In the debate that followed, instances were cited of persons feeble in youth, deformed, or inheriting grave maladies, who, nevertheless, had made important literary and other contributions to society. It was also shown that a large part of the constructive work on which human progress rests had been accomplished

by men who, had bodily strength been made the test, would have been excluded from the benefits of the fund. In fact, more than one of the disputants furnished in his own history evidence that a vigorous mind was not inconsistent with a frail body, and that a system which condemned the physically weak to exclusion from the higher work of civilisation would be destructive to the best interests of society, even if those interests were measured by the narrowest considerations of profit. Notable among those who had contributed to this higher work of civilisation was one above all others whom it behooved the Faculty at that moment to remember. To John Harvard, a man of feeble constitution, the University owes its very foundation and indirectly the ideals toward which its faith and hope are directed.

It has been estimated that not less than one tenth of the total population is afflicted by ills which greatly hamper the work of life. In primitive states of society these imperfect individuals were apt to perish in youth, or, if they survived, where all were untutored, their disabilities were not hopelessly damaging. At present, however, since the tasks imposed upon the individual are far more serious than those which came to earlier men, the burdens which invalidism puts upon the intellectually ambitious are all the more grievous. Moreover, modern society does not permit the defective at birth to perish. Not only would the practice be repugnant to most humane

minds, but the adoption of this course, as we shall see hereafter, would deny to the world the lives of those who may become capable of rendering important service.

At the outset society necessarily rested upon force. In this stage of development the cripple naturally was an object of contempt. Nor is this feeling confined to man. Other animals have been observed to fall upon and destroy a member of the flock that is sick or hurt or blind. Wild crows will chase and maltreat a tame, that is a non-militant, crow whenever they get a chance. Later, the worship of strength was affirmed by the military spirit that dominated the social order, and, although its importance is somewhat lessened, the love of warfare still remains one of its strongest motives. Even where the army has ceased to be the front of the state, the same savage impulse for which it stands is expressed in other organised ways, — in the excesses of athletics, for example.

Since the success of society depends largely upon the variety in the mental and moral motives of those composing it, men of weak bodies who, in spite of adverse circumstances, attain to intellectual dominance help to persuade the public to adopt the new and more spiritual view of life; and not infrequently the quality of their minds tends not only to diversify but to ennoble the state. Indeed, such people often stand as a protest against the grossness immanent

in communities controlled entirely by the vigorous; moreover, at an early period of life they are apt to have something of the physical disenthralment belonging to age as well as its spirit of moderation.

The poet at least is reluctant to believe that either strength of body or length of days is the most significant fact in the life of an individual. Ben Jonson would have cared little for the mere prolongation of years now set forth by life-insurance statistics. To his mind distinction lay not with "the oak three hundred years old," doomed at last "to fall a log, dry, bald, and sear." It was the lily which showed that "in short measure life may perfect be."

At present the high value set upon health and physical training renders it possible, without encouraging a low standard of vitality, to make some concessions to the victims of evil inheritance. There are even indications that the time is approaching when people will be as much ashamed of their bodily infirmities as they are supposed to be of their moral obliquities. In the meanwhile, in all directions, enterprises are being set on foot to better the conditions of those whose misfortunes make the race of life one of exceeding difficulty. And yet many illustrious invalids exhibit the heroic qualities which lift them from the plane of toleration and pity to that of profound respect; they also show that the surmounting of difficulties has in itself been the most potent agent in the development of character

and in the enlargement of achievement. With most men, sick or well, the battle of life is fought uphill; but obstacles which give zest to the strong need in the case of the weak pluck and resolution beyond the average to overcome. Battles, public calamities, and catastrophes which offer opportunities for the incipient hero to break from the ranks of ordinary men, come to but few; the cripple, however, has a chance of heroism always at hand. Fate has set a combat in his soul, and it may be his own fault if he does not win victories there.

The education which the invalid may receive from institutions, however powerful, compared with that which he is forced to give himself, is but slight. In becoming his own taskmaster he is compelled to scathe the backsliding which under the milder system might have been condoned. The history of almost every invalid who has risen above the level of the common herd shows that the shaping process that brings order and beauty out of a chaos of ineptitudes and complainings is largely due to self-training. In this effort the most difficult task perhaps of all that await him is to arouse in himself a wide sympathy with the life that lies beyond the narrow limits of the sick-room, — in other words, to emerge from the state in which wholesome interests are lost in the immeasurable cares of self-preservation. The greater men of the medical profession are now unwilling to leave the sick per-

son in the isolation and apathy of those cut off from active relations with society; they concern themselves with the problem of what he may get out of life and what he may contribute to it. Indeed, the patient is encouraged to take himself in hand, not with morbid self-consciousness, but subjectively, in the manner of an experimenter, and find out how far, by attention to diet, sleep, and recreation, he may make his life fruitful. Success or failure in this endeavour of course largely depends upon the power of the will, also upon the various intellectual dexterities that may be practised.

The ills of the body, it is said, carry the ills of the mind with them. This unhappily is often true, but the relation is not uncontrollable. Every invalid knows that he can compel the body to do work which it does not desire to do. Therefore it would seem as if the very foundation of the art of doing strong work with a weak body consists in extending and affirming the domination of the intellect and the will.

CHAPTER II

LESSONS FROM THE LOWER LIFE

THE lower animals show us that intellectual function and bodily structure, though unquestionably related, are not bound together in the intimate fashion which some naturalists are disposed to believe. Wherever, as in our domesticated animals, we know the creatures well, we find that in individuals, apparently similar in bodily structure, there may be a considerable diversity in the measure of intelligence. Moreover, in many of our domesticated animals, especially in the dog, the most domesticated of all, there is no predicable relation between the bodily and mental conformation. Several varieties of dogs having extremely weak bodies, which indeed may be called deformed, are among the most intelligent of their species, while some of the best varieties, as far as physical development is concerned, are mentally the most inept.

The main point we are endeavouring to establish is that, in the present state of our knowledge, the quality of the mind, except in persons of a degenerate type, is not ordinarily to be determined by external features. It is evident that there is a progressive advance in the independence of intelligence

with reference to the structure of the body long before we come to the level of man. This advance is shown in many ways, but particularly by the wide range in the mental quality of our domesticated animals and the far wider range in those qualities within our own species.

In man the separation of the intelligence from the general system of the body has been greatly favoured by that attribute of mind which we term self-consciousness. Even among men the child, until it has arrived at the age of two or three, though intelligent, is probably not consciously so, its state of mind in this regard probably resembling that of animals. In animals the intelligence is commonly at work only when the body is in a state of activity; as soon as the mind ceases to be active the body is at rest. Self-consciousness has developed in man a capacity for mental activity while the body is inert. In fact, it is impossible to conduct the larger part of the work of the mind, at least where that work is not of the simplest and most animal-like character, unless the body be in a state of repose. In modern society, with most intelligent men, the body acts as a servant; among the lower men it was the master. In civilised life, so long as the man can perform any one of the extremely varied functions for which that society calls upon its members, he may not only find a sphere of existence, but may be of great value to his kind.

It is in the development of the deliberate conscious will that is found one of the most peculiar and important characteristics of the human mind. In man the will bridges over the gaps between the activities, and when properly developed gives a quality of continuous action to life which is wanting in the lower animals. It is to this essential emancipation of the mind of man from his body that we owe the possibilities of great intellectual development in individuals whose physique may be defective. Society in its higher forms is organised, not upon the physical conditions of the individuals who compose it, but upon the moral and intellectual diversities they exhibit.

As long as the body has sufficient integrity to maintain the functions of the intelligence the creature is fit for a share of the work of life. It is, of course, better for the individual, and therefore better for society, that he should have an ideal form; but few of the tasks which society imposes require such perfection. Only in the archaic work of war do we find the old demand for the perfect body without any great regard to the measure of mental capacity that may go with it. Even in the ruder forms of labour mechanical appliances frequently perform the larger part of the work, and intelligence and determination count for more than bodily strength. The writer knew a cripple soldier, who had lost his right leg at the hip, to begin life again

as a ploughman and lay the foundation of a considerable fortune. He used that form of plough where a man rides; but he attended to his four horses and worked fifteen hours a day during the season in which his labour was possible. One of the ablest commanders in the Cunard service was for years a cripple, and did his arduous work from a wheeled chair, which was shoved about the deck by his attendant. These instances are given to show how far ingenuity and modern clinical devices diminish the evils of the imperfect frame.

CHAPTER III

THE INVALID'S ATTITUDE TOWARD LIFE

IN the way of suggestion the invalid probably owes to the father of modern experimental science as much as to any other man; for, unlike the ancient philosophers, who paid little attention to the things that promoted the physical well-being of their kind, Francis Bacon's distinctly avowed aim was the multiplication of human enjoyments and the mitigation of human suffering, — "Utility" and "Progress" were his watchwords. In the opinion of the ancients philosophy lies deeper, — the object of her lesson is to form the soul. It is in the combination of the two systems that the true physician of our time finds his profit. While seeking for the remedies that annihilate pain, he pleads with his patient to put his trust in character. He cherishes as ardently as did the men of old the desire that "a man may be happy while suffering torment," though he may neglect none of the material resources of his art to relieve them of it.

The power of the body to thwart or aid the soul's life in this world of sense is admitted by medical experts; that is, in a general way it is believed that the state of the body accounts for the emotional

life,—whether a man becomes an hypochondriac or a mentally well-balanced person. Since human history grows continually out of animal history, even though the power of the soul has no recognised limits, the animal part of man at least has its recognised rights. Therefore as a prop to the spirit, if for no other reason, it is deemed worth while to strive mightily for physical health. It has thus come about that the reclamation of the invalid, like that of criminals and waste lands, occupies the thoughts of practical and noble minds. Indeed, man has ceased to submit humbly to what are called the laws of nature; he struggles to assert his own will even against the power of death, and in recognising its great possibilities endeavours to extend the narrow limits of life itself.

The hospital, the official emblem of the altruistic motive, is the most impressive testimony in modern times to man's intelligence and benevolence. In it the invalid finds organised aid in his warfare with sickness; he finds protection and comfort, and there may learn the truth of the Tuscan proverb: "Though all may not live on the piazza, all may feel the sun." Happily the golden age of invalidism is not a thing of the past; it is of the present and future. The decrepit have fallen upon the good times of anaesthetics, antiseptics, skilful diagnosis, and careful nursing. It is open to debate, however, whether too sybaritic a regimen may not fall to the man who

through his own follies becomes a physical mendicant. If Plato valued the remedial art at less than its worth, he nevertheless discovered some of its dangers. "The art which mitigates the natural punishment of the sensualist and stays chronic disease" found no favour in his sight. He believed that accidental injuries and the occasional distempers of men of good constitutions might be cured. "As to those of bad constitutions, let them die, and the sooner the better; such men are unfit for war, legislative and domestic life"; and what was still worse in his eyes, "if they engaged in any severe mental exercise, they suffered from giddiness and fulness of head, laying the blame at the door of philosophy."

The science which Plato would have banished from any "well-regulated community" Bacon regarded with intense interest. In his opinion the end of philosophy was to increase the pleasure and mitigate the misery of mankind. This Englishman, among the first to correlate life and science, would not, according to Macaulay, have thought it beneath the dignity of a philosopher "to invent a garden-chair for the invalid, repasts that he might enjoy, or pillows upon which he might sleep soundly." The hospital of to-day undoubtedly would have been to him one of the most satisfactory fulfilments of his practical and humane theory of the province of knowledge.

If in the modern dispensation "the quality of mercy is not strained," it does not behoove the stoic to com-

plain; for the way of the man of whom fate has made a gargoyle to carry off the physical and spiritual refuse of his forebears is indeed hard. There can be no doubt that ill health, aside from the effects of crime, for which it is often responsible, is the most terrific burden laid upon the spirit of man; the misery it occasions is immeasurable, the tax it puts upon the soul beyond computation, — yet the list is long of those who have triumphed over it; and if, as Napoleon said, "I made my generals out of mud," it may be asserted that suffering has made saints out of clay of the most unpromising kind. It may be truly said that in working out his salvation the invalid needs the heart of a chevalier, the soul of a believer, and the temperament of a martyr, and more than any other mortal he has to learn to put his trust in the strength of the spirit.

There are physicians who believe that the invalid, having the power to fix his attention upon some noble work, has for the time being conquered his malady. In this manner the active mind may repulse the aggressions of disease, may even live above the sensation of pain. Kant furnishes the world with a lesson of this kind.

The great metaphysician lived the mechanically ordered life of a bachelor in a quiet, retired little street of Königsberg. "To rise, drink coffee, write, deliver lectures, eat, take walks, — these had their appointed time," says Heine. "Eight times, at all

seasons of the year, he walked up and down 'The Philosophers' Walk'; and when the weather was unfavourable his old servant Lampe, with a long umbrella under his arm, might be seen wandering anxiously behind him, like a picture of Providence. Strange contrast between the outer life of this man and his destructive, world-crushing thoughts! . . . The good people saw in him nothing but a professor of philosophy, and when he passed they greeted him kindly and perhaps set their watches by him."

Immanuel Kant began his studies at the age of eight, and his last book was published after sixty years of almost unmitigated mental labour. Max Müller has said, "The bridge of thought and sighs that spans the whole history of the Aryan world has its first arch in the 'Veda,' its last in Kant's 'Critique.'" Speaking of his own work Kant said, "I do not think that many have attempted to plan an entire new science and have also completed it." He believed it impossible for others to imagine the amount of time and labour required for this task. Time and again he thought his work completed when further reflection suggested new problems to be solved. It was thus that the "Critic of Pure or Theoretical Reason" grew upon his hands.

Kant's intellectual work is too vast a subject to be entered upon here; we may, however, consider with profit the circumstances under which his enormous contributions to modern thought were accomplished.

Although never confined to his bed except during the last year of his life, as he says himself, he was never well and never sick; that is, he was never entirely free from pain, and yet was able to go about and follow almost uninterruptedly his intellectual labours. He applied his utmost intelligence to the task of making his body the obedient instrument of the mind, maintaining that one should know how to adapt himself to his body. In this process of adaptation he tried many experiments and was unwearying in seeking information concerning the effects of climate, food, and occupation. He attached great importance to regularity in eating, sleeping, and drinking, as well as to recreation, which he regarded as one of the resources of hygiene and a valuable stimulus to the intellect. It was his habit to have daily two or more guests at dinner. On these occasions he was prodigal of his conversational powers, talking upon the most sublime or the most ordinary topics.

The great metaphysician declared that it was better to be a fool in fashion than to be out of fashion. "Nature," he said, "particularly the flowers, teaches the most important lesson in the choice of colours for garments; thus, the auricula shows us that a yellow waistcoat belongs to a brown coat." Applying this lesson, his own clothes generally showed a mixture of black, brown, and yellow. In private his costume was even gayer. A visitor calling early

one morning found the little philosopher at work in his study dressed in a yellow dressing-gown, a red silk Polish necktie, a nightcap on his head, and over this nightcap his three-cornered hat.

Notwithstanding the nice adjustment of his life to the end which he had in view, Kant's constant debility undoubtedly interfered with his intellectual productiveness. In his fifty-fourth year he writes: "For a long time I have been accustomed to regard myself well with a degree of health so small that many would have complained. This condition admonished me to take care of myself and attend to recreation." He was often supposed to be in better health than was actually the case, for the force of his will enabled him to withdraw his mind from his ailments. He obtained such control over his discomfiture that when suffering from a pain in his head he could concentrate his mind so perfectly on a chosen subject that the pain was treated as if it did not exist. By sheer force of will he would also overcome sleeplessness caused by rheumatic attacks. "That these," he says, "were not imaginary pains was proved by the glowing redness which was seen the next morning on the toes of my left foot." His experience led him to believe "that not only rheumatism but cases of epilepsy and gout might be resisted by a firm resolution of the will and in the course of time be completely cured."

Kant was accustomed to face squarely all the un-

favourable conditions of his life and to use his penetrating intellect to minimise their effects. He thus tried to do away with the disadvantages of his small and badly formed body. "On account of my flat and narrow chest," he writes, "which affords but little room for the movement of the heart and lungs, I have a natural predisposition to hypochondria, which in earlier years bordered on weariness of life. The reflection, however, that the cause of this oppressive feeling was probably mechanical, and could not be removed, soon brought it to pass that I paid no attention to it; and while I felt oppressed in my chest my head was clear, and I possessed a cheerfulness which I could voluntarily communicate in society, and I was not as hypochondriacs usually are, — subject to variable moods. Since we enjoy life more on account of what we do than what we receive, intellectual labours can resist those interferences which proceed solely from the body by promoting a different kind of feeling. The oppression in my chest remained, for its cause lies in the structure of my body, but I have become master of its influence on my thoughts and actions by turning my attention away from this feeling altogether, just as if it did not at all concern me."

In the end "he succeeded so completely," he said, "in separating his head from his chest that the oppression of the latter did not affect the former." "This," says one of his contemporaries, "was a

revelation to me respecting the head products of Kant. Let us rejoice, my dear friend, that in our case head and heart still go together." And yet Kant firmly believed that no good work could be done without enthusiasm.

Having lived by rule himself, he thought that the conduct of young people should be determined by rules rather than by impulse. "Character," he says, "consists in skill to act according to maxims: these, not the supreme principles of morality, are yet necessary to the autonomy of the will, as without them there were no definite object of action."

Aside from a few changes in his mode of work, which his growing feebleness exacted, Kant showed little friendliness to self-indulgence. Ten o'clock was his hour for retiring; at five minutes before five in the morning his servant entered his room and called out with a stern military voice, "It is time." Kant would frequently ask Lampe in the presence of visitors if in thirty years he had ever been obliged to wake him twice? The answer was invariably, "No, very noble Professor."

The feebleness of age, his loneliness, and the actual suffering of the last year of his life led the philosopher to question the wisdom of his untiring efforts to prolong existence. If he had not been so intent on this purpose he fancied that he might have ended his career when he ceased to live an intellectual and social life. He complained that he could

eat, sleep, and walk, but no longer was of benefit to society. Kant died in his eightieth year. "In his death," said a writer of that period, "Königsberg has lost one of its noblest inhabitants; his kindness, his uprightness, and his sociability will long be the subjects of painfully precious remembrance for all who were intimately acquainted with him."

The state of the sick, like every other in life, is an opportunity, and an invalid may play many parts. He may live in a state of apathy and despair, or determine not to be left behind in the race. Yet other possibilities await him: he may successfully act the rôle of rascal, which Dr. Johnson averred every sick man was. It is possible, indeed, for him to enlarge his imagination to the point of entering sympathetically into partnership with all sorts and conditions of men, — the poet, the moralist, and the hero of adventure. "I 'm large, — I contain multitudes," says the chief of optimists. In other words, the invalid has to set in order the share of good and evil that has fallen to his lot, and learn, above all else, to help himself.

Compared with the full measure that comes to the strong, the weak are apt to imagine that their share of the banquet of life consists in picking up the crumbs that fall from the healthy man's table; but in spite of that belief it is demonstrable that men

of his kind, by making some selection in the materials of their existence, may themselves spread feasts worthy of the greatest. Living in a state of low vitality, immersed in an atmosphere of despondency, the invalid, of all men, needs the inspiration of hope and example. Having received little he is disposed to believe that little should be required of him. It is nevertheless necessary to remind him that it was the man who hid his one talent in a napkin that was contemned by Christ. For the weak of body this parable has profound significance. Upon the one that is stinted the hand of obligation lies heaviest to make the most of what he has. Indeed the spiritual effort to effect this enlargement adds to his moral capital and is an earned increment of the most precious kind.

One of the greatest lessons which life teaches is respect for the potentialities of men, — for the glory hidden in the mortal frame, no matter how decrepit it may be. Neglect on the part of the individual to find this glory in himself and in others may perhaps be accounted the unpardonable sin. As a general thing, the men and women who fail to make anything of their lives do so more from poverty of will than from physical defects. The real disease too often is lodged in the mind. There are people having so strong a vocation for invalidism, indeed for misery of all kinds, that the call to exertion and self-help will ever fall upon deaf ears. There is no

curing those who choose to be ill; there must be the will to recover as well as the hope of doing so, for without hope the earnest fight cannot be maintained. Confidence and hope have won many a battle, and these forces in some cases are acknowledged to be remedies greater than any found in the pharmacopœia. The desire and will to accomplish a task worth doing, the mental preoccupation with self for the sake of something beyond self, is, for the invalid, of the nature of a deliverance. Strong men and women have shown themselves capable of living past the introspection and the selfishness that disease engenders; it is indeed possible to prove that there are few forms of bodily ailment over which man has not triumphed.

The influence of sympathy as a defence against the evils of a self-centred life is well recognised; its benefits may be attained not only from actual association with others, but in a more constant though less vivid way, by the contemplation of the lives of such as under trying circumstances of disability have courageously pursued the business of life. The invalid may even adopt certain of these notables as his companions, or mentors, in much the same manner as the pious adopt the lives of saints for their guides.

While the attitude of the invalid's mind towards himself is a matter of importance, it is above all desirable that he should have as little self as possible. The measure of a man's satisfaction in life,

as well as the gauge of his culture, is determined by the extent to which he emerges from the limitations of his own spirit.

The study of nature also furnishes a way of escape from the thrall of self. The deep joy which the love of nature may bring is closely akin to the field of human sympathies and is powerful to draw the mind out of itself.

Bacon[1] was one of the earliest students of nature. It is probable that his interest in the natural man and his sympathy with his distempers was in part due to his own ill health. He doubtless speaks from personal experience when he says, "A cripple in the right way may beat a racer in the wrong one; nay, the fleeter the racer is who has once missed his way, the faster he leaves it behind."

The exact nature of Bacon's ill health is nowhere definitely stated. In his mother's letters there are occasional allusions to it, and now and then a chance phrase of his own reveals the fact that to the disadvantages of poverty his frail constitution added other burdens. This fact is significant because of the vastness of his intellectual labour and the influence which it has had upon modern thought.

Bacon was early sent to the University of Cambridge, and soon became convinced that if the study of nature was barren, it was because the method of study was wrong. This conviction became the con-

[1] Francis Bacon was born at York House, London, Jan. 22, 1561.

trolling influence of his life, and "thenceforth he had an object to live for as wide as humanity, as immortal as the human race." His aim was to reach practical results in politics and morals, to increase thereby the amount of human happiness and diminish the amount of human suffering. Beset by sickness, distractions, and humiliations of all kinds, he remained steadfast to the great cause of human progress.

In a letter written when he was about one and thirty Bacon thanks God that his health is somewhat confirmed. He frequented the courts more than he had previously done, and "argued a number of causes with great learning and eloquence." Ben Jonson says, "No man ever spoke more neatly, more pressly, more weightily, or suffered less emptiness, less idleness in which he uttered . . . The fear of every man that heard was lest he should make an end."

His gain in health could not have been of long duration, for Bacon's mother observed "that Francis is continually sickly by untimely going to bed and then musing *nescio quid* when he should sleep." In one of her letters she deplores "that inward secret grief hindereth your health, and everybody says you look thin and pale." Whether it was consciously done or not, Bacon at any rate sought the best possible remedy for this state of body. At Gorhambury he found delight in his beautiful gardens and entered upon agricultural pursuits on a large scale.

It was at the culminating point of worldly glory that the accusation of bribery and corruption was brought against Bacon. Overcome by anxiety of mind and feebleness of health he made a formal confession and rendered up the seals of office.

Having done with the vanities of the world, he chose to follow the example of Seneca, who, banished to a solitary island, spent his time in writing books of "excellent argument and use for all ages."

"The Novum Organum," the second part of "The Installation of the Sciences," is the great work on which Bacon's reputation as a philosopher rests. His essays, fifty-eight in number, he says, "come home to men's business and bosoms and, like the late new half-pence, the pieces are small and the silver good." "It is in this work," according to Dugald Stewart, that "the superiority of his genius appears to the greatest advantage. . . . It may be read from beginning to end in a few hours, and yet after the twentieth perusal one seldom fails to remark something overlooked before."

While endeavouring to find out whether ice could be used as a substitute for salt in the preservation of flesh, Bacon contracted a sudden chill, and died at the age of sixty-six. It is interesting to know that in the last letter he wrote, when he could hardly hold his pen, he records the success of the experiment which caused his death.

Although differing as to the originality of Bacon's

method, all scholars agree in regard to the penetrating quality of his intellect. Macaulay compares his mind to the tent which the fairy Parabou gave to Prince Ahmed: "Fold it and it seemed a toy for the hand of a lady; spread it and the armies of a powerful Sultan might repose beneath its shade." Furthermore, he speculated upon many practical questions which now agitate the public mind. To cite one instance, he recommended physicians to undertake inquiries concerning the influence of the imagination upon the body, especially in connection with the nervous system.[1]

If the accounts of Bacon's ill health are vague and the circumstances under which he worked obscure, such is not the case with another philosopher who, two centuries later, laboured, if not more wisely, at least with as great assiduity as did the apostle of experimental philosophy. Posterity is left in no doubt as to the nature of Voltaire's maladies or the conditions under which, while protesting against wrong and oppression, he who was physically weak fought the battle of the socially weak.

When he entered this world it was supposed that François Marie Arouet, subsequently known as Voltaire, was born dead. The nurse carelessly laid him upon the sofa, and it was only when his grandfather,

[1] For further particulars see Life of Bacon, by James Spedding; Biographical History of Philosophy, by George H. Lewes; Essay on Bacon, by T. B. Macaulay.

whose anxiety about his daughter brought him to the room, happened to sit upon him that the infant screamed and showed a trace of that superabundant vitality which gave an almost frenzied activity to his future years.

François was so feeble that every morning for several months the nurse reported that he was at the point of death, and as often the Abbé Châteauneuf devised some new plan for saving the weakling's life.

Young Arouet's early contempt for serious things may be traced to the gloomy religious views professed by his ascetic brother Armand. The effect of Armand's fanaticism and the worldliness of the Abbé de Châteauneuf, an old friend of the family, upon a mind adroit in setting forth every human frailty was to make of François the most expert mocker the world has known. Even while at college he revolted at the burning of a Jewess and her daughter at Lisbon for having eaten meat at a season when the priests forbade it. And still later, among other anecdotes of the kind, the story of the Grand Monarch who, when he received the news of his defeat at Ramillies, exclaimed: "Has God then forgotten all that I have done for him?" the disputes of the Jansenists and Molinists, which gave rise to the assertion that Christ did not die for *all* men, so wrought upon Arouet's spirit that his sceptical and iconoclastic tendencies became confirmed.

Though spoken of as "little Arouet" the poet in

fact was tall. His brilliant and piercing eyes were his only good feature. His manners were polished and, like his Jesuit teachers, he was keenly alive to the importance of being agreeable; nor did he neglect the resources of the toilet, as is shown by the following list of things ordered to be sent to him after he had become a man of fortune: One pair of large diamond shoe buckles, other diamond garter buckles, twenty pounds of hair powder, ten pounds of smelling powder, etc., etc.

The study of the law, which his father insisted upon his taking up, gave young Arouet "an occupation which it was a pleasure to neglect." Meanwhile, mingling with the "Epicureans of the Temple," most of whom were princes or poets, the law student learned the secret of getting on with great people. "By having it well *at heart* that men are equal, and clearly in *the head* that externals distinguish them, one can get on very well in the world," he said.

Although guiltless of the scurrilous attacks directed against the regent, for which he was held responsible, Arouet received a *lettre de cachet*, which in those days was politely interpreted to be an invitation to partake of the hospitality of the king at his royal Château, the Bastille. While there, with his usual energy, the poet threw himself into the composition of "La Henriade"; thus, according to Frederick the Great, his prison became his Parnassus. It is asserted that he composed the second canto of his epic in his

sleep; that he retained it in his memory and never found anything to alter in it. When it was given to the public its success was immediate, and in time it " received all the honours of translation, imitation, suppression, papal anathema, piracy, parody, burlesque, general approval, and universal currency."

In Voltaire's letters, collected by Dr. Roger, who made a special study of " Voltaire the Invalid," there are many allusions to his formidable list of maladies, — rheumatism, dyspepsia, ophthalmia, asthma, cerebral congestion, and disease of the heart; all ascribed to a scrofulous diathesis. In succession these ailments bring the poet to " death's door " or force him to suffer " the torments of the damned." They so stimulated his imagination that in the end he became hypochondriacal; his physicians and friends giving him credit for greater physical vigour than he was willing to acknowledge. In one of his letters Voltaire writes, " Tronchin [his doctor] says I am very well, — do not believe a word of it."

It is conceded that Voltaire's physical infirmities were aggravated by his moral shortcomings; the reasonable and dutiful qualities shown by many invalids were entirely remote from him. He never controlled his violent temper, his appetite for unwholesome food, or his inordinate love of work. And yet he lived to be eighty-four years old. He doubtless owed his preservation primarily to his wonderful mental elasticity, as well as to the long

periods during which he was confined to his bed, for although upon these occasions his work was never entirely suspended it was necessarily diminished.

In 1723 the poet writes to his friend Tieriot: "My health and my affairs are shaken to an incredible degree. I was not born to live in a city. . . . There is no health for me save in the solitude of *La Rivière;* I feel as if I were in hell when in this wretched city of Paris. . . . I finish by assuring you I am as sick as a dog, in other words, the most unfortunate creature in the world." His lamentations were momentarily interrupted by the pleasure of having his new tragedy "Mariamne" acted at the famous Château de Maisons. While the preparations for the fête were in progress Voltaire and his host were seized with the smallpox. In one of his letters he gives a full account of the development of the disease, the number of times he was bled, and the number of pints of lemonade (two hundred in all) that he drank.

He writes from Forges: "The waters have done me more good than I expected. I commence to breathe and become acquainted with health: I have only half lived up to the present time. God grant that this little ray of hope may not soon become extinguished." Still later he writes: —

"PARIS, Aug. 24.

". . . I have remained eight days in this house to see if I could work by day and sleep at night, two things without which I cannot live, but there is no such thing as either

sleeping or thinking with the infernal noise that one hears . . . otherwise my health is more feeble than ever.

"September.

" . . . The waters of Forges have killed me. I have renounced all nature; I have regarded sickness for some time past as a kind of death which separates us from the world and makes us forget it; I try to accustom myself to this first kind of death in order to be some day less afraid of the other."

"PARIS, November.

" . . . I pass my life in continual suffering; I have here no other experience. . . . I count upon passing the rest of my life with you, because I imagine you are generous enough to love me with a bad stomach and a mind crushed by sickness, as if I had still the gift of digesting and thinking."

Voltaire's famous rencontre with the Chevalier de Rohan once more plunged him into trouble; again he became the guest of the king in his château of the Bastille. It was thus, according to Parton, that "literature had to make its way between the cudgel and the Bastille after it had outlived the wheel and the fagot." Voltaire's request to be allowed to go to England instead of remaining in prison was granted. In his old age it is said his eyes would kindle when he spoke of "once having lived in a land where a professor of mathematics (Sir Isaac Newton), only because he was great in his vocation, could be buried in a temple where the ashes of kings reposed." His admiration of things English stopped, however, at her "savage dramas."

When at length Voltaire got leave, as he said, to drag his chains in Paris, he entered keenly into the social and business life about him. One army contract alone brought to the poet capable of purveying "biscuit and laurels" at the same time 600,000 francs. Never again did he want for money, although he continued throughout life "as attentive to business as though he had no literature; as devoted to literature as though he had no business." He was right in saying, "I find one has time for everything if they wish to employ it."

The following letters show the state of Voltaire's health in 1730. He writes: "I am dying, my dear Tieriot; but before dying in my bed like a fool I pray you to change the last scene of Tullie."

"To A. M. CEDEVILLE, 1732,—

"My health is worse than ever. I am afraid of being reduced to a condition in which I cannot work, which for me would be a horrible disgrace. I am in such a state I can scarcely write even a letter."

Voltaire's reason for turning from literature to science is stated thus: "We must give our souls," he says, "all the forms possible to them. It is a fire which God has confided to us; we ought to nourish it with whatever we find that is most precious, open all the doors of our souls to all the sciences and all the sentiments; provided they do not enter pell-mell there is room within us for every one of them." The poet felt but little interest in

the man who could do but one thing. Great as he esteemed Newton, he would have reverenced the philosopher, whom he regarded as the greatest man that ever lived, even more had there been a vaudeville or a poem to testify to his versatility.

Once more in danger of being arrested, Voltaire was forced in the depth of winter to set out upon his uncertain wanderings. From Leyden he writes to M. Tieriot: "It is true, my dear friend, that I have been very sick, but the vivacity of my temperament takes the place of strength. . . . I have come to Leyden to consult Dr. Boerhaave about my health."

At an early stage of the poet's celebrated correspondence with Frederick the Great, Frederick writes: ". . . For the love of humanity do not alarm me any more by your frequent indispositions. . . . What joy it would be to contribute in some fashion to the re-establishment of your health! Send me, then, I pray you, an enumeration of your infirmities and of your miseries, in terms barbaric and in uncouth language, and that with the utmost exactitude." Again: ". . . You send me letters for the nourishment of my mind and I send you recipes for the benefit of your body. They are from a very skilful doctor whom I have consulted about your health." These letters indicate the importance that was attached to Voltaire's health by himself and his friends. When the illustrious correspondents met for

the first time Voltaire found the king muffled up in a thick blue dressing-gown shaking violently with the ague. He commenced the acquaintance by feeling his pulse.

Unrelenting industry was another bond of sympathy between the king and the poet. Patient of almost every other human frailty, Voltaire looked upon idleness and negligence as unpardonable sins.

While Frederick's guest at the Prussian court Voltaire's health is still the theme of his letters. He writes to Mme. de Fontaine: "My amiable child, let us digest, — that is the great point. My health is much the same as it was at Paris: and when I have the colic I would send for a promenade all the kings of the Universe. I have renounced the divine suppers, and I find myself somewhat better. I am under great obligations to the King of Prussia; he has set me the example of sobriety. Behold a king who was born a gourmand who sits at table without eating and who is nevertheless good company, and me, I give myself indigestion like a fool."

"To A. M. Deveaux, —

"It is eight months since I have left my room, except to go to the king's chamber."

"To A. M. Bagieux, —

". . . I brought to Berlin twenty teeth; there only remain six of them. I brought two eyes; I have only one left. I did not bring erysipelas, but I have got it, and it

requires a great deal of management. I have not the air of a young marrying man. . . . Nature had given that which they call my soul the most meagre and miserable scabbard; however, I have buried nearly all my doctors; there is only the king's doctor, to be disposed of."

The time at last came when Frederick, having grown weary of his guest, began by reducing his rations and ended by putting him in prison. The poet appropriated the wax candles in the antechamber of the king and ridiculed the other court favourite. Finally, the potentate and the poet bade each other adieu with civility, though their hearts were big with resentment.

It was on the shores of Lake Geneva, no longer hampered by prince or prelate, that Voltaire became the prince of a wide intellectual commonwealth. His efforts to procure redress for the victims of legal injustice lifted him to the rank of the noblest philanthropist. When he once entered upon a contest of this kind Europe knew no rest. The names of Calas, La Barre, Servin, Count Lally, and others are associated with his sympathy for human suffering and his courageous assaults upon those who inflicted it. Moreover, in an age of cruelty and intellectual oppression he taught men to respect "the power and rights of the human understanding."

At Ferney he continued to be frequently ill, and for months at a time stayed in bed; he also continued to work with preternatural fervour. His

writings are contained in seventy volumes (Beuchot's edition). His correspondence, including all classes from sovereigns to obscure young men, would alone have given occupation to a man of no ordinary industry.

After thirty years' absence, in the capital which had more than once rejected him Voltaire received a welcome accorded only to the greatest military heroes. Intoxicated with adulation and dragged hither and yon by his countrymen, in the intervals of the dissipation they spread before him he laboured (making immoderate use of coffee — fifty cups during the day, followed by opiates) to perfect the tragedy of "Irène" which was to precede the ceremony of crowning the poet at the Comédie Française. The excitement of this occasion, and the intellectual orgy which had gone before, ended his life, it is supposed, rather than any innate necessity for dying at that time. Under other circumstances the same strength of will which for eighty years had enabled him to resist disease and to work with almost unparalleled productiveness might have borne him triumphantly along for yet another decade.

Having begun our illustrations with a philosopher, it is perhaps as well to include in this chapter other seekers after truth irrespective of their special maladies. Among them Aristotle stands forth pre-eminently, — the man of whom it has been said, "His

seal is upon all the sciences and his speculations have mediately or immediately determined those of all subsequent thinkers." And again: "He penetrated into the whole universe of things; and to him the greater number of the philosophical sciences owe their origin and distinction." But above all we owe to Aristotle, who was educated as a physician, the first approach to a scientific knowledge of animals. He began the observations which have since led to the discoveries concerning the lower life upon which man's spiritual growth has been grafted. His book on "The Soul" is as much a biological as a psychological treatise.

Unfortunately the record of Aristotle's ill health is imperfect. It is known, however, that he was never robust, his persistent physical weakness arising, it is supposed, from some form of chronic indigestion. But slight as are the data, it would be a grave omission in this place not to call attention to his unrivalled intellectual achievements under the burden of a weak body. His little treatise on "Politics" Dr. Arnold, who knew it by heart, declared was of daily service in its application to our own time. His "Ethics," "Rhetoric," and "Logic" are by many still held to be authoritative and unsurpassed. His "Metaphysics," it is claimed, would of itself suffice to found a great renown. His fragments on "Poetics" is perhaps the most valuable of all ancient critical writings. And to these must be

added his scientific works on physics, astronomy, zoölogy, comparative anatomy, and psychology.

The value of Spinoza's[1] "Ethics" to the sick of body and mind is so great that although details such as Voltaire has furnished in regard to his health are lacking, it nevertheless seems worth while to give more than a passing notice to his accomplishments. Spinoza's "Ethics" have interpenetrated the morals of the world, and since ethics — right knowledge and the discipline of life — find, or should find, its place in the sick-room, he speaks to the invalid with the voice of a friend, — high-minded and full of instructiveness. No less than Franklin, who says, "Eat and drink such an exact quantity as suits the constitution of thy body, *in reference to the service of the mind*," Spinoza also would give due care to the sick body in order that in the end one's thoughts might the more steadily be fixed upon the mark of human perfection and upon the attainment of inward peace. Judgment and reason are his watchwords, and under their guidance no one can doubt that the ill health from which he suffered, instead of breaking his spirit, strengthened it.

Spinoza encourages the invalid to persist; for the "will to live, the competence to be, is the root of all action, of all that makes the world alive." In the

[1] Baruch de Spinoza was born at Amsterdam, 1632. His parents were Portuguese Jews who, wishing to escape the discipline of the "Holy Office," fled to the Netherlands.

ethical as well as in the natural field of action the self-preserving effort is the ultimate fact of life, and like every other fact must be reckoned with. But this effort does not necessarily lead to a system of selfishness; for the success of the individual is more than a personal affair; it is essentially social. The triumph of the searcher for wisdom is to find help for his fellow man as well as for himself.

Although Spinoza's aim was to show the way to happiness, "he does not rush off," says Sir Frederick Pollock,[1] "to take the chief good by storm, but prepares to make sure of it by artificially conducted approaches," in the manner that the invalid is forced to adopt; prudently looking to it that in the struggle for life "sentinel and outpost duties are carefully performed." Furthermore he recognises "that pleasure marks the raising, pain the lowering, of the vital energies; . . . some pleasures, however, are but a partial good bought at a ruinous price, and some pains which bring healing are evils submitted to that greater evils may be avoided."

While Spinoza's march is over a road well trodden by seekers after health and reconciliation, in many respects he was a moral pioneer, a constructive genius, presenting a new aspect of the old problem of adjusting internal relations to external conditions; success in this endeavour meaning, to his mind, life.

In the treatise on "The Amendment of the Un-

[1] Spinoza, His Life and Philosophy, by Sir Frederick Pollock.

derstanding" the philosopher begins by setting forth the futility of certain desires, such as wealth, power, and the pleasures of the senses. After due reflection he concludes "that all those things which the multitude pursue not only provide no remedy for the maintenance of our being but actually hinder it, and are oftentimes the ruin of such as possess them, always to such as are possessed by them." The invalid can make his own application of these principles of conduct, which in Spinoza's case were no abstract theories but the basis of everyday practice. Under his guidance the art of living becomes a thing of proportion and adaptation; it is founded on common-sense, — not, however, of the hard, uncompromising kind: a merciful judgment tempers its austerities, and a leaning towards the poetic and even illusive phases of existence relieves it of rigidity. In view of the temporary nature of the conditions of life he even sounds a note of warning against building too laboriously, — putting a stone house where a wooden shed would do. Moreover, he consoles the invalid imprisoned within narrow bounds by his infirmities with the reflection that the capacity of a man may be increased for receiving impressions from without even if he cannot impose his action on outward things. He also demonstrates that mental discipline may induce the moral emotion that is sought. Throughout his writings there is something renovating and awakening in the emphasis he puts

upon "the will to live, the competence to be," and even when the sick man's mind is dazzled by the splendid profusion of the outer world he becomes almost reconciled under Spinoza's teaching and example to a sometime niggardly and always painstaking use of his materials; especially since the philosopher refuses in his estimates of results to separate the work from the condition, the part from the whole. "Know in thyself and the world one selfsame soul."

Spinoza had little sympathy with dejection in any of its forms, with the man who thinks too meanly of himself. "For," he says, "so long as he conceives that he cannot do a thing, so long is his action not determined to that thing, and therefore so long is it impossible that he should do it. . . . Self-maintaining activity," he claims, "is a virtue. For virtue is an active power, and power is an affirmation of the agent's experience."

In compliance with the rabbinical precept, which commands every man to learn some handicraft, Spinoza, having been instructed in the physical sciences, learned the art of making and polishing lenses for optical instruments. By this craft he earned money enough to supply his slender wants. It, however, aggravated the disease, consumption, which made his life difficult and shortened his days.

Spinoza led a life of retirement, but not of isola-

tion, — to have lived as a hermit would have been contrary to his ethical theories. "A wise man," he says, "will recruit and refresh himself with temperate and pleasant meat and drink; yea, and with perfumes, the fair prospect of green woods, apparel, music, sports, and exercises, stage plays, and the like, which every man may enjoy without any harm to his neighbour. For the human body is compounded of many different parts, which ever stand in need of new and various nourishment, that the whole body alike may be fit for all actions incident to its kind."

"The above is not, however, the apology of a man of the world for his careless living," insists Sir Frederick Pollock, "but the grave unrepining approval of innocent pleasures by a student debarred by his own circumstances from sharing in many of them. Nor does he approve them simply because they are pleasant, but as tending to a high purpose, the many-sided culture of body and mind." He adds, "There is something touching in the thought of this man, weak in body, of slender estate, living by sedentary toil and giving his leisure to philosophy, thus reconstructing for himself the Athenian ideal of a free and joyous life, in which the pursuit of beauty is chastened by wisdom and temperance, while wisdom itself is informed with the delight of a fine art, and contemplation goes hand in hand with the manhood and active fellowship of citizens." In

the concrete the moral of Spinoza's philosophy is that one should do well and be of good cheer, and also that "happiness or unhappiness depends on the nature of the object whereon we fix our affection. Strife, envy, hatred, and fear are the constant penalty of loving perishable things."

The value of this poor, weak, and rejected thinker's philosophy as a working system of life has been attested by many great minds. It appealed strongly to Goethe, who found in his "Ethics" a sustaining guide. He says, "What chiefly drew me to Spinoza was the boundless unselfishness that shone forth in every sentence."

Coleridge claimed that "The Ethics," Bacon's "Novum Organum," and Kant's "Critique of Pure Reason" were, in his opinion, the three great works since the introduction of Christianity. It may be noted here that all three of these contributions to the world of thought were made by men of feeble health, whose greatest work perhaps lay in the fact that the goal was reached by them with the clog of unhealthy and hindering bodies.

In tone of mind the transition from Spinoza's to that of one of the more recent philosophers is indeed great; yet each has his word of command. Herbert Spencer (1820–1903), the devisor of the synthetic philosophy and one of the most active thinkers of the nineteenth century, may be added to the long and distinguished list of valetudinarians. Though con-

stitutionally feeble, what he calls his "breakdown" did not occur until his thirty-sixth year. After this event there were long continued periods when he was unfit for mental work. Spencer asserted that his collapse was due to the fact that, lacking at that time the resources of a club and having but few acquaintances, his mind became so fixed upon the task he had in hand that morning, noon, and night it was always with him. This absorbing work was none other than the self-evolved creation of a new science of philosophy. We say self-evolved, for he was singularly independent of what others had done or were doing; it has even been doubted whether he ever read a book on science from beginning to end, and it is known that he composed his own works without going to the sources of knowledge on the subjects of which they treated. On the other hand, he picked up ideas and facts from the most trivial experiences of life, — a walk, a drive, or a visit to the country.

Although insomnia was the evil from which he suffered most, the nature of Spencer's malady is obscure. Like many others who of late have been credited with eye strain, his nervous troubles also have been ascribed to this cause. According to his own accounts, his head sensations and insomnia were associated with reading, whereas he could dictate without confusion of head and without groping for the right thought or word. Instead, however, of consulting an oculist Spencer, having persuaded him-

self that his trouble was due to his cerebral circulation, resorted to various devices for self-cure.

Although his malady, whatever it may have been, left his moral nature secure, it was doubtless responsible for his extreme irritability and also for his "impenetrable isolation" from all trains of thought that did not affect his own; since, in his opinion, his nerve centers were so inadequately supplied with blood why tax them by inviting irrelevant ideas?

Spencer gave little outward indication of his wretched sensations, and in consequence he got little sympathy from his friends, some of whom believed that his trouble was more superficial than he was willing to admit. He himself called attention to the fact that nervous invalids rarely look as old as they are. At first, when incapacitated for work, and utterly without prescience of his future brilliant career, Spencer thought that his life was ruined by the loss of his health. At these times he wandered about in town and country, talking with any chance acquaintance, entering into any diversion that would serve to kill time. Eventually he cultivated all sorts of indoor and outdoor games as safety valves, and threw himself into them as heartily as the men who make them their chief occupation. While composing the earlier parts of the "First Principles" one autumn, by the shores of a Highland loch, Spencer would first row in a boat for a quarter of an hour to make the blood flow freely through the brain, and

then for an equal length of time would dictate without let or hindrance. In London, at a time when his head was bothering him, though otherwise well, he took his exercise at a racquet court, and it is noteworthy that his confidence in the power of good circulation to stimulate thought is justified in one of his most abstruse efforts, "Transfigured Realism," which was dictated in the intervals of a game of racquets. His readers, says Professor Royce, would have been surprised had they known of the non-philosophical surroundings amid which that high argument was elaborated. The same author, having in mind the unlikely places in which Fancy is bred, adds, "One is tempted to believe that no small part of the world's best thought and feeling is conceived or generated on the noisy streets of the world's metropolis."

Spencer was at all times ready to join in a picnic, believing that the loss of time was compensated by the gain in energy. While he disapproved of field sports in general on the score of cruelty, he defended angling (of this pastime he was very fond), for the reason that fishes are cold-blooded animals. Spencer undertook long journeys in the hope of gaining health, but was often disappointed. An indigestible dinner eaten at Alexandria so affected him that his visit to Egypt was without pleasure. While in the United States dyspepsia and anxiety of mind, connected with the customary speech-making at public

dinners, apparently deprived him of whatever profit or enjoyment that might otherwise have come to him.

Spencer's essay on education is virtually a summing up of the training that he received from his father. The profession of civil engineering, for which he had prepared himself, was eventually abandoned that he might more fully develop his mind and influence the thinking of his time. He shared with many other great men a contempt for one-sided capacity; he thought that an able man should be capable of doing anything. He himself might have gained distinction in various fields; his numerous mechanical devices showed that he was not without the making of a successful inventor. His water colours gave evidence of artistic ability, and his knowledge of music assurance of excellence in that field if he had devoted more time to it.

Notwithstanding the great and continued self-denial that Spencer was obliged to practise, life on the whole seems to have given him no small amount of satisfaction. He exhibited a wonderful amount of patience, a willingness to reap his harvest in due season, and a serene devising of ways and means to meet the special conditions of his life. A vivacious march on Paradise not being in consonance with his temperament, he set to work to get the most out of his earthly existence; not infrequently gaining something akin to positive pleasure when he only

looked for physical relief. If happiness is internal harmony, as it has sometimes been defined, then Herbert Spencer had the right to be happy; indeed, on the whole, he seems to have been well content with himself, or, at any rate, he was strangely, almost chillingly, self-sufficient. Spencer died in the fulness of his fame, leaving many ardent disciples and interpreters of his thought.[1]

[1] For further particulars see Herbert Spencer, An Estimate and Review by Josiah Royce.

CHAPTER IV

WEAKNESSES PECULIAR TO MAN

THE rapid development of man's intelligence and the swift increase of his desires urges the mind ever forward into new fields of activity, while the body, held by inheritance, adheres to its ancient shape. The result is, that although the human form has undergone considerable modification in the passage from the brutes it remains, in many respects, unsuited to the demands which the intelligence makes upon it, and therefore is sorely taxed to meet its requirements.

The change in the attitude of the body, which, though begun among the lower kindred of man, is only completely accomplished in him, brings with it certain grave disadvantages. The whole weight of the body now rests, during the period of activity, upon one pair of limbs, which frequently are not sufficiently strong to support the burden, and in consequence there tends to arise a particular class of deformities. The human infant, unlike the young of other animals, remains for a year or more unable to support itself upon its legs. The spinal column, admirably organised for service as a part of a girder in the animals where the trunk is horizontal, is less

suited for its totally different service in the human body, where it acts as a column. To this defect, in a greater or less degree, we owe the numerous cases of curvature of the spine, a malformation particularly unfortunate since, in addition to other evils, it gradually affects the appearance of the body. It is one of the triumphs of modern surgery that it has succeeded in devising methods by which the progress of this deformity may often be arrested and the difficulties arising from it reduced in degree, or altogether obviated.

In most instances hunchbacks (who not infrequently are persons of vigorous mind) accept decrepitude as their fate and fall into inactive habits. But profound as are the modifications of the frame which attend this malady there is no reason why, with care, the body cannot be held to its duty and life preserved even to advanced age. A moderate amount of exercise with the arms and a persistent habit of walking will often maintain the power of the lungs even where the chest is narrowed by the deformity.

A well-known geologist of Great Britain, who was extremely hunchbacked, succeeded by dint of exercise in preserving a tolerably vigorous lung power, which enabled him to do the arduous work of a mountaineer and on foot to explore a large part of the surface of Europe.

Deformities of the lower limbs are also connected

with the peculiar physical attitude of man. In some instances these defects may be ascribed to the fact that the child, having weak bones, has been permitted at too early an age to rest the weight of the body upon the legs, which have in consequence assumed either the form of knock-knees or bandy-legs.

Other congenital deformities are due to defective growth of an arm or a leg, in rare cases to failure of one half of the face to develop after early youth, and to left-handedness and left-sidedness.

Lombroso's investigations in this field have led to the conclusion that women are more frequently left-handed than men, and that criminals are more often left-handed than honest men. "I do not dream at all," says Lombroso,[1] "of saying that all left-handed people are wicked, but that left-handedness, united to many other traits, may contribute to form one of the worst characters among the human species." It is a current fact that the people of Lombardy and Tuscany use the saying, "He is left-handed," to express the idea that a person is untrustworthy.

Fortunately, with a moderate amount of training, the muscular masses speedily take on in youth, and may afterwards maintain through life, the form and degree of activity which is normal to them. Notwithstanding men have long been acquainted with the fact that strength of body may be increased by

[1] Left-handedness and Left-sideness, by Cesare Lombroso, North American Review, September, 1903.

exercise, the application of the process to the remedying of imperfect development is a matter of modern times and skill. For a number of years careful experiments have been carried forward at Harvard University with reference to a deliberate application of physical exercise to the improvement of the form and functions of the body. By the cultivation of the muscular system incipient deformities, it has been found, not only may be arrested but considerable malformations may be overcome. The capacity for muscular development is retained until long after youth; indeed, under exercise it may continue until old age arrests all development. As an additional argument in favour of exercise it may be stated that among the lower animals, whose experience determined the form of man, the body had to be active in order to subsist. This activity was also necessary in the earlier stages of human society, where each individual sought his own food, framed his own dwelling, and from day to day endured the fatigues of war and the chase.

About one third of humanity pursue sedentary occupations, and in this wise subject the body to the deformities incident to the sitting posture. In the erect position, except where a person stands still, all the muscles are brought more or less into action, the trunk organs are stimulated to their functions, and the interaction of the bodily parts is preserved. When lying down the muscles are relaxed, the ex-

penditure of nervous force which their activity calls for is arrested, and the body is free to accumulate force for subsequent activities. The sitting posture is considered by some physicians a poor compromise between these two conditions.

The bodily strain which the physical conditions of man puts upon him gives an inadequate idea of the total tax which he has to bear. His enormous mental development; the incessant activity of his imagination, ever suggesting new demands upon the body; the endless combat between the impulses and the will, as determined by inheritance, are the burdens which lie heaviest upon him. We now know that each organic creature represents in its bodily and intellectual qualities the experience of its ancestors, except in the degree to which it has been affected by individual experience, in all the steps leading back to the origin of life, — the motives of the higher brutes and those of its human kindred from the lowest savage to the present time. Therefore each human being has to be regarded not as an individual only, but as a great procession in which a myriad of shadows from the past are combined, most of which are but the ghosts of ancient impulses dominated by those of a higher nature and later origin. Some, more substantial than others, — the captains of the spectral army — derived from the immediate ancestors, are the real masters. Hence it would seem as if the inherited impulses which dominate the body

— their powers, their accords and discords — were determined by conditions that are not only removed from man's ken, but are beyond the limits of his control. The mental inheritances, however, which on the whole are of new origin, though they cannot be entirely extinguished, may be dominated by the essential part of man, the will. Thus the personal will, when it takes on the form of conscience, may become the master of the savage and brutal impulses derived from the past; where it fails to determine conduct the creature may be regarded as still in a low stage of development.

It is easy to see that the modern knowledge concerning inheritance prodigiously changes our conception of human nature, and yet we find a close likeness between the present and the ancient view. Of old these impulses were called devils, and the man strongly impelled to vicious action was said to be possessed of evil spirits inflicted upon him by the gods, or by diabolical enchantment. We now recognise that these evils are ancestors, in the form of inherited impulses, and while these ancestral demons may have a certain natural claim to their place in the great procession of life, it is the province of the will and conscience to keep them under subjection.

The power of the will over the body affords some of the most remarkable phenomena exhibited by man. Its control in illness or in the case of wounds is of

special interest. Surgeons have observed how profoundly the effects of wounds depend upon what is called the *morale* of the individual. The man of weak will and strong imagination is overwhelmed by his mischance. Another, trained by habit, or perhaps by inherited impulse, to meet evils resolutely, owes his survival to his determination to live. In ordinary disease the action of the will is often seen to have a healing power as great as that of the ablest physician. The acquisition of this power is therefore a matter of peculiar importance to those who have frail bodies, requiring a certain measure of compulsion in order that they may serve the needs of the intelligence.

In youth, at least, the limitations of inheritance are tolerably elastic, and, though by taking thought man cannot add a cubit to his stature, yet, by voluntary movements, modifications of form, even variations in functions may be brought about. Thus the intelligence of man is gradually extending its conquests, so that we may look forward to the time when it shall subjugate an empire, whereas now it is but a pioneer in a new and fertile but unexplored field.

Among those who have, with the most persistent courage, struggled against the evils of a crooked spine and a body of infinite infirmities is Alexander Pope. It is remarkable that the phrase "Whatever is, is right" — the phrase which sums up the whole

system of optimistic philosophy — should have been penned by one so put upon by nature. That he should have been capable of this reconciliation with adversity is a testimony to the energy and dominant power of the mind. Pope's attitude toward life is a curious refutation of the theory that the mind takes colour from the diseased condition of the body. Although his character was anything but perfect, his mental outlook upon life was as healthy as that of his more robust contemporaries; moreover, his industry was unflagging, and so long as the "spark of heavenly flame" remained in his body, which at best was a mere bundle of distempers, he exerted his will and his intellect for the accomplishment of literary tasks, which delighted his age and are still models of a finished style. His work illustrates the proverb that the key one uses oftenest is the most polished.

To his mother Alexander Pope[1] owed his sick headaches, and to his father his crooked form. He was thus doubly the heir of infirmities, and although he lived to be fifty-six years of age, he was never other than a confirmed invalid. When a child he was said to have been beautiful, and the sweetness of his voice earned for him the title of the "Nightingale." In the person of Dick Distich Pope thus described himself in one of his papers in "The Guardian": "A lively little creature with long legs and arms, a spider is no ill emblem of him. He has

[1] Alexander Pope was born at Binfield, May 21, 1688.

been taken at a distance for a small windmill." The pitiful account which Johnson gives of Pope's physical condition rests upon the authority of an old servant of Lord Oxford's who knew him after middle age: "He was then so weak as to stand in perpetual need of attendance; he was extremely sensitive to cold, so that he wore a kind of fur doublet under a shirt of coarse, warm linen with fine sleeves. When he arose he was invested in bodices made of stiff canvas, being scarcely able to hold himself erect till they were laced, and then he put on a flannel waistcoat. One side of his body was contracted; his legs were so slender that he enlarged their bulk with two pairs of stockings."

In a letter to Bathurst, Pope admits that he does not expect to enjoy any health for four days together, and Bathurst, upon one occasion, remonstrates with him upon his carelessness, asking him, "if it is not enough for him to have the headache four days in the week and be sick for the other three." Pope speaks of his life as a long disease, and thanks his muse for the consolation she has given him under these trying conditions. He was not devoid of other consolations, for his physical infirmities did not prevent him from travelling about on horseback, from taking considerable exercise in his garden, or seeking diversion wherever it was to be found. "Our friend Pope," said Jervis, "is off and on, here and there, everywhere and nowhere, *à son ordinaire*, and

therefore as well as we can hope for a carcass so crazy." Speaking of Pope's presence in London on the death of Queen Caroline, Bathurst remarks, "He was as sure to be there as a porpoise in a storm."

Amidst the perplexities and problems connected with Pope's life the facts with which we are mainly concerned admit of no doubt. All the testimony goes to show that he was a deformed and a hopeless invalid, that his mind was brilliant, his energy inexhaustible, and his will strong. Never, perhaps, was there united in one person talents so great and a capacity for drudgery so enormous. The Catholic religion which Pope professed deprived him of the public-school and university training; it also cut him off from politics, from the bar and the pulpit. To the calling of literature, the only one left to him, he brought talent, ambition, and untiring industry. These powers, marshalled by the valiant spirit which animated his poor little frame, enabled him to become, while still a young man, the acknowledged head of English literature.

Pope was essentially his own teacher; he says: "Considering how very little I had when I came from school, I think I may be said to have taught myself Latin as well as French and Greek, and in all of these my chief way in getting them was by way of translation." Mrs. Rickett, his half-sister, remarked: "I believe nobody ever studied so hard as my brother did. In his youth he did nothing but

write and read." As a result of this close application his health became so bad that for a while he lost courage and calmly awaited death. Thanks to his physician, who prescribed diversion and exercise, before long Pope was able once more to resume his self-education. Whether owing to a natural defect of mind or to the absence of early training, he was only able to work spasmodically; but if his labours were interrupted, they were in one sense continuous, for he returned again and again to his task.

According to Johnson, Pope's attention to poetry was never diverted. "If conversation offered anything that could be improved, he committed it to paper. If a thought, or perhaps an expression, more happy than was common, rose to his mind he was careful to write it. He was never elevated to negligence nor wearied to impatience." It is asserted that upon one cold winter night he called up his servant four times to enable him to record an idea. His method in composition was "to write his first thoughts in his first words and gradually to amplify, decorate, rectify, and refine them." The result of this unceasing care was a style terse, polished, and epigrammatic. He acquired the power of concentrating into a couplet the thought of a chapter and the art of setting forth an old idea in so pointed a fashion as to give it the force of a new one. As an illustration of the hold his epigrammatic sayings have upon English-speaking people, in Bartlett's

" Familiar Quotations " more space is given to Pope than to any other poet after Shakespeare.

The history of Pope's literary work is the history of his life. Already at the age of fifteen he had written an epic poem, " Alcanda," in which he modestly aimed to reproduce at once the beauties of Milton, Cowley, Statius, Homer, Virgil, Ovid, and Claudian.

When Pope was but twenty-five years of age he began a translation of Homer into English verse. The sale of the " Iliad " and the " Odyssey " together brought, for those days, the remarkable sum of nine thousand pounds. The literary success of the "Iliad" placed the poet at the head of English literature, and the pecuniary success gave him the independence of fortune which he so much desired. The audacity which prompted the little invalid to undertake so difficult a task with his imperfect knowledge of Greek is a matter of surprise, even though it be admitted that scholars were less exacting in his day than ours. In Pope's opinion the " Iliad " was meant to show the wickedness of quarrelling and the evil results of an insatiate thirst for glory; though, as Mr. Stephen says, " Shallow persons have thought that Homer only thought to please."

As Pope himself said, " The life of a wit is a warfare upon earth," and such literally was his own experience. His abnormal irritability and vanity were doubtless at the bottom of the tricks and quar-

rels for which he became famous, — although his facile trickery has in part been ascribed to the religion he professed. His quarrel with Addison, whose chief offence lay in the fact that he was the patron of Tickell, Pope's rival in the translation of the "Iliad," was the most famous of these literary altercations. It aroused all the latent venom of his heart and all the splendid powers of his intellect. After the satire which he wrote on Addison, it is easy to believe, as Pope says, that he, Mr. Addison, should have used him civilly ever afterwards.

Affecting the man of the world, Pope speaks of his country retirement, where he could enjoy the company of the muses, but where, on the other hand, he was forced to be grave and godly, instead of drunk and scandalous, as he could be in town. But as some one has said, there is a division of labour even in vice, and Pope doubtless only professed what others practised. Indeed, he was bound under heavy penalties to be throughout life a valetudinarian. Swift once said to him, "The least transgression of yours, if it be but two bits and one sup more than your stint, is a great debauch for which you pay more than those sots who are carried dead drunk to bed." He cites an instance of his abstemiousness, which was perhaps also intended by Swift to show his meanness. It seems upon one occasion, when he was entertaining a couple of friends, four glasses of wine having been consumed

from a pint, Pope retired, saying, "Gentlemen, I leave you to your wine." And yet at times he could give a splendid dinner, and Lord Orrery said, "Pleasure dwelt under his roof and elegance presided at his table."

It was at his villa at Twickenham that Pope entertained his friends, worked in his garden, and embellished the famous grotto, of which he writes, —

> "There St. John mingles with my friendly bowl
> The feast of reason and the flow of soul."

The neighbourhood was not infrequently visited by royalty itself, but the poet was so little a respecter of persons that on one occasion he went to sleep at his own table while the Prince of Wales was talking to him about poetry. Dr. Johnson very justly remarks, "He never set his genius to sale and passed over peers and statesmen to dedicate his 'Iliad' to Congreve"; and Bolingbroke said, "he had never known a man with so tender a heart for his own friends or for mankind."

To the last Pope's intellect remained vigorous, but in spite of the caution and finesse he often employed his body became too feeble to meet any longer the demands of his restless and active mind. Early one morning he arose, and in a half delirious state tried to write an essay on the "Immortality of the Soul." This was his last literary effort.

It has been gradually borne in upon us that the

invalid's equipment for the battle of life, so unlike that of the vigorous man, naturally leads to different methods in the conduct of the campaign. Where the one uses rude force and is strong enough to run some risks, the other is obliged to resort to a delicate and various policy; to submit to being thwarted here, diverted there. In the case of Pope the machinery of his moral existence, as must be the case with all frail people, was carried on principally through the medium of habit, — the habit of constant work. Furthermore, this class of persons, in the matter of strength, is forced to follow the prosaic example of the prudent man who keeps an account of his incomings and outgoings with no small result, as has been shown in the life of the poet.[1]

[1] See Life of Pope, by Leslie Stephen; Life of Pope, by Dr. Samuel Johnson; Life of Pope, by William Roscoe.

CHAPTER V

UNPROMISING CHILDREN

PHYSICIANS tell us that for the first three years the human body undergoes modifications such as in most of the lower animals occur in the pre-natal state; and since during this period it often gives no indication of the vigour it may afterwards attain, it is almost impossible to foretell what the child's future is to be. The instances given below will show how far, with proper care, undersized and delicate infants may, in spite of these disadvantages, secure not only a measure of physical strength, but an immeasurable degree of success in the various pursuits of life.

In the case of adults the mind stimulates and in a fashion commands the body; with infants, however, there is no such determining influence. Therefore if the child can be carefully nurtured until the intelligence begins to awaken, a decided change for the better may be hoped for.

Of the two somewhat distinct but closely related divisions — the sympathetic and the cerebro-spinal system — in the nervous organisation of man, the former is born with the creature in a state of tolerably full development; the latter, however, takes on

greater development as life advances and co-operates more efficiently with the work of the other parts of the nervous system, but the measure of this co-operation is not determined until maturity. To this fact we may owe some of the surprising cases of change in the vigour of the body at a later period of life.

Sir Isaac Newton (1642–1727) once told Mr. Conduitt that he had often heard his mother say that when he was born he was so little that they might have put him in a quart cup. No one believed it possible for him to live. "But," says his biographer, "the frail tenement which seemed scarcely able to imprison its immortal mind was destined to enjoy a vigorous maturity." Newton lived to be eighty-five years of age. He attained to medium size, and after his early youth seems to have had good health. He was short-sighted but never wore spectacles, nor did he ever lose more than one tooth in his life.

At school Newton showed no great aptitude for study, and doubtless would have remained low in his classes but for the fact that he was incited to get ahead of a boy who kicked him in the stomach. After this stimulating kick he worked industriously, and became the first scholar of his class. It was, however, during the hours of play that he showed the inventive bent of his mind. Among the things he made was a windmill, a water-clock, and a carriage moved by the person who sat in it. In the

case of the mill, not content with the motion produced by the wind, he inclosed within it a mouse, which he called a miller, and which, by acting upon a treadmill, gave motion to the machine. He studied the best form and proportions for paper kites, and to the tails of these attached paper lanterns, which on dark nights beguiled the country people into the belief that they were comets.

The decomposition of light, the theory of universal gravitation, and the method of fluxions, made the three great discoveries which have given to Newton his unique place in the world of thought.

It is hardly too much to say that the body as it was shaped by inheritance has often in a measure to be made over and brought into new conditions in order to fit it for the progressive work of life. Such seems at least to have been the case with many distinguished men of whose infancy we have knowledge. Victor Hugo (1802–1885) thus speaks of himself: —

"This country of ours was two years old, the Sparta of the Republic was giving place to the Rome of the Empire . . . when at Besançon there came into the world a child of mingled Breton and Lorraine blood, who was colorless, sightless, voiceless and so poor a weakling that all despaired of him except his mother. . . . That child, whose name Life appeared to be erasing from its book and whose short day of existence seemed destined to pass into night with never a morrow, — that child am I."

Although Victor Hugo's life was despaired of by the doctors, his mother determined, as far as lay within her power, that he should live, and at the end of six weeks he was able to be carried from place to place, according to the wanderings of his military father.

At Paris Madame Hugo and her sons dwelt for a time in a house belonging to the convent of the Feuillantines, — a place of enchantment, as stimulating to Victor's imagination as the fountain of Domrémy was to Joan of Arc.

Later, when Captain Hugo figured in Spain at the court of Joseph Bonaparte, the boys were sent to a school patronised by Spanish grandees. Here they were looked upon as interlopers, and eventually were glad to escape from its unsympathetic atmosphere, all the more oppressive to Victor on account of his constant ill health. It is said that even while at school he drew his nourishment from the breast of a healthy peasant woman.

While at the "École Polytechnique," though excelling in mathematics, Victor composed odes, satires, epistles, tragedies, elegies, idylls, and so on through the whole category of metrical composition, his success inducing him to say, "I will be Chateaubriand or nothing."

Eventually he became the chief of the romantic movement in France, — a literary movement not easy to inaugurate, since the French found it ex-

ceedingly difficult to break the classical spell that Racine, Corneille, and Molière had thrown over the national intellect. This revolution dated from the publication of Victor Hugo's preface to "Cromwell." In the words of Théophile Gautier, "The Preface shone in our eyes like the tables of the law on Mount Sinai."

In the "Orientals" the poet showed himself an adept in the use of words such as France had never seen. These poems acted as a kind of lyric intoxicant, causing the enthusiastic youth of his time to exalt the author to the position of a demigod. The Théâtre Français, where the play of "Hernani" was first brought out, eventually became the battle-ground of the Romanticists and Classicists, in the end the victory remaining substantially with the former. Of Victor Hugo's plays "Hernani," "Ruy Blas," and "Marion de Lorme" are acted, read, and enjoyed at the present day. His ambition to improve upon Shakespeare's historical accuracy and social philosophy was not a success. It is difficult for the reader of "Marie Tudor" to recognise in Franc Baronum Francis Bacon, or in the bold paramour of an Italian adventurer (for such the author represents her) the broken-hearted bigot, Mary Tudor of English history.

At the age of thirty Victor Hugo had won the foremost place in French literature. He was received at the French Academy as a brother by the

thirty-nine "Immortals" "seated," as Browning puts it, "by gout and glory in their thirty-nine arm-chairs."

After the *coup d'état* the poet withdrew to Jersey, whence he issued "Napoléon le Petit," and later "Les Châtiments," which, in the union of pure poetry with personal satire, ranks as the greatest achievement of all literature.

Victor Hugo worked continually, but not with the spirit of a recluse. Social life, physical exercise, art, nature, and life in all its manifold aspects yielded their stimulus and delight. In the construction of his work-room at Hautville House, Guernsey, he instinctively sought that which physicians, in many instances, now deliberately prescribe for delicate people. It was entirely enclosed in glass, which admitted a flood of sunlight and permitted on all sides the contemplation of the varying aspects of nature, to whose healthful influences both his mind and body were constantly exposed. Here for the next fourteen years he laboured. His favourite motto was, "A little work is a burden and much work a pleasure." His habit was to rise at six o'clock, and to write, standing at his desk, without interruption until his breakfast at twelve.

Some of Victor Hugo's most original work was produced when he was fifty, and at no time was his mind more active than between the ages of seventy and eighty. His writings published during this time

are contained in ten or more volumes; among them is the charming book of verse entitled "L'Art d'être Grandpère." After the unpromising period of childhood his physical strength increased with years; even in old age he dispensed with an overcoat, rejected umbrellas, bathed in cold water, walked a good deal, rose early, and sat up late.

During his last years Victor Hugo's plays were revived, his earlier books reverenced, and the new ones received with applause, their enormous sale bringing him an ample fortune. Moreover, no weakness of body or mind compelled him to make concessions to old age; to suspend intellectual toil, or to forego physical exercise. When he died his remains were carried to the Panthéon, followed by a million of people, who furnished an escort such as a Roman emperor might have envied. This was the earthly ending of one who at birth appeared too impotent to tempt any but a mother's care.[1]

Daniel Webster (1782–1852) was another instance of unpromising infancy. Among other incidents of his early days he mentions that from infancy to manhood his health was extremely feeble, no one of his friends expecting him to live long. He had a distinct recollection, "when very young, of having been a long time sick (he was threatened with the

[1] See Life of Victor Hugo, by Théophile Julius Henry Marziales; Victor Hugo and his Times, by Alfred Barbou; Address by M. Alex Dumas, fils (before the Académie Française).

rickets), and remembered that while in this state his father one day entered the room with him in his arms and said to his mother, 'We must give him up. We can never raise this child.' His mother made no reply, but taking him from his father her tears fell upon his face as she pressed him to her bosom." Although the most delicate, he outlived every member of his family. The outdoor sports, which he kept up to the end of his life, doubtless contributed, after the age of twenty-five, to his unusual vigour. What illnesses he had at a later period were due, as he says in his diary, to the want of care.

The simple New Hampshire home, the sterile farm, and the hardships and trials of Daniel Webster's early years presented a strange contrast to the pomp and luxury that, as one of the grandest figures of his time, he later shared with the powerful and great. Writing of himself some years after leaving Exeter Academy he says: "I believe I made tolerable progress in most branches while at this school, but there was one thing I could not do. I could not make a declamation. I could not speak before the school. The kind and excellent Buckminster sought especially to persuade me to perform the exercise of declamation like other boys, but I could not do it. Many a piece did I commit to memory and recite and rehearse in my own room over and over again, yet when the day came and the school collected to

hear declamations, when my name was called and I saw all eyes turned to my seat, I could not raise myself from it. Sometimes instructors frowned, sometimes they smiled, but Buckminster always entreated most winningly that I would venture, but I never could command sufficient resolution."

"I remember," says Webster, "the very hill which we were ascending, through a deep snow in a New England sleigh, when my father made known his purpose of sending me to college. . . . A warm glow ran all over me and I laid my head on his shoulder and wept." His unfitness for farm work was probably the cause which led his parents to select him in preference to his brothers for a college education. A weak body in those days frequently brought to its owner educational advantages denied to youths of more robust constitution. If ill health and intellectual work in New England have been much associated, it is mainly because the physical toil necessary to win a subsistence from a sterile soil was too great for weak muscles.

The accounts given of Webster's first speech in Congress show that it contained all the elements of strength which marked his later parliamentary efforts. "He manifested," says Edward Everett, "upon his entrance into public life that variety of knowledge, familiarity with the history and traditions of the government, and self-possession on the floor, which in most cases are acquired by time and long expe-

rience." This statement gives some idea of how diligently Webster must have worked during his years of preparation, — years which in point of health were the most trying of his life.

Webster's reply to Hayne is regarded not only as his ablest speech but by many as the most masterly ever delivered in Congress. The debate which called it forth was the one which followed Foote's resolution on the sale of public lands. In the course of the debate, Hayne of South Carolina, a young member of the Senate, who had already won a brilliant reputation, made a speech in favour of the doctrine of nullification, which in the estimation of the northern men required an answer from Webster. His eulogy on Adams and Jefferson, who had both died on the same day, July 4, 1826, which was also the fiftieth anniversary of the Declaration of Independence, also afforded a unique opportunity to the orator equal to the occasion. So fully did Webster respond to the call that parts of his speech are thought to be unsurpassed by anything in the English language.

Speaking of the different ways of preparing speeches Webster once said, that no man who was not inspired could make a good speech without preparation; that if there were any of that sort of people he had never met them. He added: "It has often been remarked that I had made no preparation for the reply to Hayne's speech; that was not

quite so; the materials of that speech had been lying in my mind for eighteen months, though I had never committed my thoughts to paper or arranged them in my memory." He was then asked about other speeches of his which were said to have been delivered on the spur of the moment. "Young man," he answered, "there is no such thing as extemporaneous acquisition." His sports were not always mere idle amusements. It was while wading Marshfield River with his rod in his hand that he composed a portion of his famous Bunker Hill oration.

Webster was modest in the estimate of his powers. In a letter to a classmate he writes: "The talent with which heaven has intrusted me is small, very small, yet I feel responsible for the use of it and am not willing to pervert it to purposes reproachful or unjust, nor to hide it, like the slothful servant, in a napkin."

Webster's death, it is supposed, was hastened by an accident. He was thrown from his carriage and received a wound on the head. Other troubles developed. While travelling together and occupying the same room, Harvey noticed that Webster applied some kind of wash to his legs, which appeared to be swollen. He commented upon the fact and asked if any physician knew it. "No," replied Webster, "that is the enemy. Don't for the world name it to any human being. I would not like to have my family distressed by such a revelation."

During his last illness, although at times he suffered intensely, he transacted as far as possible the business of the State Department and kept up his correspondence.

"As a public speaker Webster," said Robert C. Winthrop, "combined everything; no thoughts more profound and weighty, no style more terse and telling, no illustrations more vivid and clear cut . . . no presence so grand and majestic as his." [1]

In the foregoing illustrations, which indicate the difficulty of determining from the physical or mental condition of the infant its future quality, we find a complete answer to those who object to the many modern devices for developing or protracting the life of weaklings. Although there is of course a better chance that the healthy infant will make a wholesome adult than that the feeble will attain vigour, we cannot be certain that any imperfection in the child, not the result of organic disease or of hopeless malformations, may not disappear with advancing years. In obedience to the Spartan theory of the welfare of society, Newton, Victor Hugo, Voltaire, and Daniel Webster would one and all have been "exposed" as specimens of humanity too unpromising to reward the pains of nurture.

Although the spontaneous development of the body

[1] See Reminiscences and Anecdotes of Daniel Webster, by Peter Harvey; Biographical Memoirs of the Public Life of Daniel Webster, by Edward Everett, contained in The Works of Daniel Webster.

may be trusted for much in the combat with congenital weakness, more can be done at this early stage of life than at any other by attention to orthopaedic surgery, to food and fresh air. It is possible that the beneficent effect of the open air is in part moral, and that the mere optical effect of four walls, propagated inwardly upon the mind, is accountable for some of the disadvantages arising from indoor life. It is more likely, however, that the mind and body of man, having originally developed in the open-air life, the functions of both are more naturally and therefore more wholesomely exercised beneath the arch of heaven. Even adults, hardened to the conditions of a confined life, experience in the open a sense of well-being not known in the house. Children, more sensitive still, will often become healthy in an outdoor life, especially if play forms an important part of it, whereas in the best of house conditions they may remain dwarfed and unbalanced. Indeed, just so far as we are "house-keepers" in the literal sense of the word, we experience the bodily and mental evils of those who are prisoners. It is noteworthy that, after endless efforts, based upon a multitude of theories, to cure phthisis, the "pure air" treatment for that terrible scourge is the only one that has been found to give permanent relief.

In its original shape play is a feature common to the young, not only of man but of many of the

lower animals. It is noticeable in kids, puppies, kittens, young monkeys, and, indeed, generally among the higher mammalia. With the advance of years, however, the mere antics of childhood become organised; an intellectual quality entering into the diversion, it is converted into a defined sport. The uncompelled co-operation of the mind in bodily movements — in other words, the element of freedom — marks the distinction between the sportive activities and those which pertain to occupations. In order to secure the proper development of the body, physicians now urge that every encouragement be given to the antics of childhood. Even adults, it is suggested, may find profit in a return from time to time to the old spontaneous animal activity.

"All the higher animals," says Dr. Fitz,[1] "have what we do not hesitate to call play. . . . The dog plays with the cat, the child with both; the mountain goats join in the hide-and-seek of the village school children, and a stork has been observed to play at tag, running after the children with outstretched wings. . . . A forester tells of a play between a raven and a weasel. . . . The play of pumas was once witnessed in the pampas of La Plata. The moon shone bright, and about nine o'clock in the evening four pumas, two old and two young, appeared. Soon the animals began to jump about, to

[1] Play as a Factor in Development, by George W. Fitz of Harvard University.

pursue one another, to hide like young cats, and then to lie motionless and let the others spring over them. The mother of the pumas often ran a little distance ahead and enticed her children to follow. . . .

"Observation of animals shows that this play motive continues throughout growth and even through middle age, ceasing only when the increased weight and clumsiness of advanced age make it impossible. . . . Play is not merely a result of the accidental desires of the individual; it is a result of that natural selection which demands everything serviceable to the preservation of the species. Thus youth becomes more completely an apprenticeship to life, with play as the master workman. . . . No organ or tissue, no power of muscle or brain can be fully developed except through use. . . . But this is not all. The child is habituated to make rapid judgments in the presence of ever-changing relations. He must be constantly on the alert, must perceive conditions as they are, must immediately react to them and adapt his own action to their quick changing relations. . . .

"Play may also be considered as the balance-wheel of the nervous organisation of the child, and leads to a development of the nervous elements into a strong, harmoniously acting system."

Unhappily those of defective bodies, in many cases, are excluded from the diversions of their mates, and so wander apart, losing this element of bodily and

mental salvation. Herein is found one of the least remediable evils which come to the cripple. Youth is notoriously uncharitable; it revolts at deformity, and the robust object to sharing their amusements with those who are afflicted; and yet delicate persons, both the young and the mature, of all others need something of the nature of adventure and the stimulus of contact with the strong, not only for the development of the body but for its effect in upholding the mind under discouraging circumstances.

Although severely handicapped by ill health, Ulrich von Hutten, the famous humanist, was a daring defier of restraints, and from his youth up a fervid seeker after the fulness of life and the adventures of strong men. His life furnishes a noble spectacle of a brave soul chained to a weak body, perpetually harassed by disease, yet meeting the affliction with admirable courage. Hutten lived in an age of oppression and bigotry, and although he died before the political and religious emancipation of Germany, he was a powerful agent in bringing it about.

The old castle, or rather robbers' nest, in which the father of the humanist dwelt, at Steckelberg, was crowded with armouries, magazines, stables, and dog kennels, and stirred by the coming and going of desperate men. It was in this atmosphere that young Ulrich passed his first years. Melanchthon, a believer in astrology, accounted for Ulrich's physical

weakness by the position of the heavenly bodies at the time of his birth (April 21, 1488); while his biographer, Dr. Strauss, found in the constellation of terrestrial stars, such as Reuchlin, Erasmus, Poeckheimer, Luther, Zwingli, and Melanchthon, which then shone upon Germany, an explanation of his intellectual and moral qualities.

Partly owing to his delicate health, Ulrich was dedicated to the church. He soon discovered he could serve God better in the world than in the cloister, and escaping from the monastery of Fulda, sought refuge at the University of Cologne. "Thus," says his biographer, "this worldly, chivalrous, unrestrained, and cheerful nature first found its way into the real activities of life."

At the University of Erfurt Hutten became the pupil of the learned Mutianus. This remarkable teacher wrote nothing himself, and bade his pupils remember that neither Christ nor Socrates had left anything written.

It was characteristic of the "New Learning" that it bred a love of adventure. Hutten was fond of saying, "There is nowhere I like so well to live as everywhere; my home is in every place." While travelling in Pomerania he fell desperately ill, and in a state of exhaustion dragged himself to Greifswald. Here he was taken into the home of a wealthy professor named Henning Lötz, who at first treated him well, but after a while rendered his life

a burden. In the depth of winter, over frozen roads and in wretched health, Hutten walked to Rostock. On his way thither the servants of Lötz overtook him, stripped the clothes off his back and a bundle of manuscripts from his hand, and left the poor son of the Muses, half naked, to continue his journey. At Rostock he recovered his health and collected about him a circle of students to whom he lectured. Things had gone grudgingly with him hitherto, but now success came to him in full measure, and suddenly from callow youth he emerged into maturity.

As the price of his future friendship, Ulrich's father insisted that he should take up the study of the law. This was asking too much. The poor scholar continued his wanderings. At Vienna, denied by the rector of the university (he had not taken its degree) the privilege of lecturing to the students, it is said that Ulrich called upon that functionary, and with his hat on his head actually "thoued" him within the walls of his own house. After this temerarious act it was deemed well for him to start again on his travels.

As the birthplace of the learning he professed, Hutten felt obliged to visit Italy. At Pavia, while ill with fever and swellings in his legs (he almost lost the use of one of them), he was plundered by French and Swiss soldiers. Believing himself lost, he wrote his own epitaph, in which he speaks of himself as one "nurtured in grief, pursued by mis-

fortune, and appointed by fate only to seasons of sorrow." Driven by dire necessity, he entered the army; but ill health made the life of a soldier an unutterable burden.

Returning to Germany, Hutten was coldly received by his family, who said "he had learned nothing and was nothing." Etelwulf von Stein, however, urged him to make an address on the occasion of the entrance of the archbishop into Mayence. The panegyric hit the mark so well that the bishop sent him two hundred golden gulden and promised him an office at court. Poor Hutten, whom Fortune hitherto had, except at short intervals, left to shift for himself, now became the *protégé* of two eminent men; but while at Ems in search of health, he heard of Von Stein's death, and also of the murder of his dashing young cousin Hans by the Duke of Würtemberg. Infuriated that a reigning prince should murder a noble, the Huttens demanded redress of the emperor, and the hitherto despised pen of Ulrich was called into the service of his kinsmen. The orations which he wrote in the cause of the bereaved father were worthy of his great classic models, and showed that his humanistic studies had not been in vain. In the end the duke was obliged to abdicate for six years and to pay the Huttens a large sum of money.

At last, having consented to study law, Hutten once more set out for Italy. His stay at Rome,

however, was short. One day, in the heat of argument, he was attacked by five Frenchmen; whereupon he whipped out his sword, stabbed one, and put the others to flight. Proud of his reputation as a knight and soldier, he made this exploit the theme of several epigrams.

Of the literary fruit of the great Reuchlin controversy (originally provoked by an attack upon the Jews, the conflict gradually involved all the principles upheld by the men of the "New Culture" as opposed to the bigotry of the old Scholastic). "The Epistolae Obscurorum Virorum," written by Hutten, has stood the test of time. In their day they were regarded as the most effective assault against papal supremacy and the opponents of Humanism, and three centuries later Dr. Strauss is able to say: "This work reminds us more than any other of the first of its kind, 'Don Quixote,' that world-wide satire in which the contrast between a waning and dawning phase of life and thought was seized by the hand of genius and lifted out of the region of satire into that of humour." Though Luther lacked the humour to appreciate the "Epistolae," it is said that Erasmus laughed so heartily over them that he cured himself of a dangerous swelling by causing it to break.

Hutten's brilliant reputation, his sparkling wit, his patriotism and power, brought him the honour of being crowned court poet by Maximilian; but he

soon tired "of the flattering promises, everlasting salutations, sly talk, and empty vapourings" at court and wrote against that form of existence. At this time his health was so bad that one of his friends advised him to put an end to his apparently hopeless suffering by taking his life. In search of health, he travelled from place to place, testing the skill of quacks and regular physicians.

In the "Roman Triads" Hutten in a measure anticipated Luther's renunciation of Rome. In this work he calls the popes "the successors of Nero and Heliogabalus." Warned of his danger, he replied, "No great and memorable deed is done without danger; I will speak the truth though they threaten my life." He was now the popular hero, only second to Luther in the hearts of the people; the two were called the champions of the fatherland and of German liberties.

In order to influence the nobles and common people Hutten conceived the idea of writing in the mother tongue instead of in Latin, which was only understood by the learned few. A masterpiece known as "The Lamentation," and a popular ballad beginning, "I have cast the die," were the immediate results of this resolution.

For the moment the Knight Errant's literary vehemence subsided, but his personal feuds remained unabated. He is accused of having attacked three abbots on the highway, and of having had the ears

of a Dominican friar cut off; while in his turn the Humanist got smarting damages from a Carthusian monastery, the prior of which had grossly insulted his portrait.

At Basle Hutten sought safety as well as the repose his wretched health demanded. He was welcomed by all classes of people; only Erasmus showed no pleasure at his coming. Indeed, this polished scholar not only disliked the vehemence of Luther and Hutten, but regarded the Reformation as the great misfortune of his life.

Toward the end Hutten's days were imbittered by Erasmus's denunciation of him. This attack induced him to say in the spirit of manly pride, "that never since childhood have I acted or lived otherwise than as became a virtuous, pious knight and noble." At the age of thirty-four death released this intrepid invalid from a life of illness, poverty, controversy, and strife. But for the constant change of scene and adventure, so congenial to his restless nature, it is doubtful whether this delicate man would have lived so long as he did. Hutten's writings were numerous, and dealt with almost all the humanistic and religious interests of the period.[1]

It is indeed a wide gulf in time and experience that separates the dreamer and champion of intellectual freedom from the renowned appraiser of

[1] See Life and Times of Ulrich von Hutten, by Dr. F. Strauss.

tangible things. If, however, they had nothing else in common, Adam Smith (1723–1790) and the "Knight Errant" each knew the thrall of weak bodies.

Adam Smith's youth was exceedingly unpromising; not only in infancy but during childhood his delicate constitution made him the object of extreme care.

It is difficult to associate one of the most far-seeing political economists of perhaps all time, the famous author of the "Wealth of Nations," with a people so oblivious to the rights of property as the gipsies; nevertheless, at the age of three he was stolen by a band of these vagrants, and the world came near losing the man destined to revolutionise the commercial policy of Europe.

At an early age Adam Smith was remarkable for his passion for books and for his extraordinary memory. Although prevented by bodily weakness from taking part in the sports of his companions at school, his genial nature caused him to be beloved by them.

As a lecturer on logic and moral philosophy at the University of Glasgow he first became famous. Students flocked from all parts of the country to hear him. His opinions were the chief topics of discussion at the clubs and among literary men. It even became the fashion to imitate his pronunciation and manner of speaking.

It was an event in the world's history when in

1776 the recluse of Kirkcaldy published "The Inquiry into the Nature and Causes of the Wealth of Nations." Of this book Dugald Stewart said: "I do not know that upon any subject whatever a work has been produced in our times containing so methodical, so comprehensive, and so judicious a digest of all the most profound and enlightened philosophy of the age." Its main thesis is, that every man, as long as he observes the rules of justice, should be allowed to pursue his own interest in his own way, and to bring both his industry and his capital into the freest competition with those of his fellow-citizens.

Appointed Commissioner of Customs in Scotland, Adam Smith removed to Edinburgh. Here he indulged his favourite weakness, — the collection of a fine library; he laughingly called himself a "beau in his books." Adam Smith died at the age of sixty-seven, after a lingering and painful illness. Although the number of his works is not large, yet the character of the subjects he treated called for the most profound study, and every variety of human knowledge was made use of to embellish and illustrate his inquiry into "The Nature and Cause of the Wealth of Nations," his "Theory of Moral Sentiments," "Considerations on the Formation of Languages," "The Nature of the Imitative Arts," and in his numerous essays on philosophical subjects.

If Adam Smith's childhood gave little promise of his brilliant future, John Flaxman's gave far less. One must indeed have had the eye of a seer to have divined in the pale, sickly face of the deformed child that other face which the coming years was to transform and flush with the triumphs of the great sculptor. John Flaxman (1755–1826) was one of those feeble children who deny the niggardly computation of nurses; for although at one time given over as dead by mother and nurse, he not only survived the vicissitudes of childhood, but his days were lengthened to three-score years and ten. During his long life he did more perhaps than any other artist to raise the standard of sculpture in England. He early became a master of the purest line, and, according to Sir Joshua Reynolds, his style was instinct with the noblest principles of Greek art, not in its mere surface skill, but in its deeper intellectual significance.

Seated in his little chair, supported by pillows, behind the counter in his father's shop, with his crutches by his side, the child spent a large part of his time in drawing the plaster casts of gods and heroes by which he was surrounded. It was under these circumstances that the spirit of art descended upon him, and, what was almost as much to the purpose in furthering the bent of his genius, it was his good fortune there to awaken the interest of one of his father's customers. The Rev. Mr. Machen, attracted to the delicate child, not so much by his

drawing as by his effort to teach himself Latin, befriended and brought him into his own cultivated home, where his wife read Homer and Virgil aloud to the boy. The heroes of these works so stimulated his youthful imagination that he became untiring in his efforts to make them palpable to the eye by drawings as well as by models in clay, and henceforth we hear more of his art than of his devotion to the Latin grammar.

At the age of ten Flaxman's health began to improve, and at fourteen, driven by poverty, he sought some remunerative work; luckily for both parties, Wedgwood accepted his exquisite designs, his unrivalled skill in modelling in relief rendering them especially suitable for pottery. Fortunately for the mass of people, Flaxman's art was not reserved for heroic subjects only; some of its finest examples are to be found in objects of household use. His designs for mantelpieces were of singular beauty, and those which he furnished for the Wedgwood pottery give to it much of its unique distinction.

Flaxman's wife was a true helpmate. She managed so judiciously that, poor as they were, they saved money enough to go to Italy, where the artist spent seven years in the closest study of ancient and modern art. The Italians were the first to recognise his power, and through them the English learned to appreciate the genius of their own countryman.

Neither time nor comparison has dimmed Flax-

man's greatness. His illustrations of Homer, Hesiod, Æschylus, and Dante represent the very quintessence of art. Among the more celebrated works of his later years are his monuments to Sir Joshua Reynolds, to Nelson and Lord Howe, his group of Michael and Satan, and his great shield of Achilles. All of Flaxman's productions are characterised by delicacy and depth of sentiment, qualities as often seen in the slightest of his pencil sketches as in his more renowned works.

CHAPTER VI

NERVOUS INVALIDS

THE nervous system, according to experts, more than any other part of the body, is liable to disorder, mainly for the reason that in the process of evolution it has developed from the lower forms of life in which the limitations of the intelligence spare the mental machinery the vast strain which comes to the higher being.

A host of the evils of digestion and circulation, even among persons who actually have considerable bodily vigour, are derived from one class of nervous disturbances, which in themselves are often due to the failure of the body to receive the stimulus and the constant reconstruction afforded by exercise and outdoor life.

Sleeplessness and depression of spirits, attended by the unhappy conviction that the sufferer is on the verge of insanity, also often arise from the lack of fresh air. In the case of young people, a moment's frank talk with a physician will generally do away with the temptation to brood over their woes, and a few days of vigorous outdoor life, during which the body and mind are together pleasurably exercised, will not infrequently lift the load of apprehension.

In solitary exercise, however, lies the danger that the individual dwells within himself. A sympathetic stimulus to an external life may be gained through the society of animals. A dog to accompany him on his walks, especially if he will undertake to train him, is apt to lure him out of himself. Horseback exercise, if the mount be a vigorous animal, may also be helpful. The old horseman may be able to brood on his woes while in the saddle, but the nervous invalid is not always saddle-wise and therefore will find considerable occupation in maintaining himself in his novel position. In other words, society and the world, instead of solitude, is to be commended; for, moving in the current, it is possible that an incident or a chance phrase may change the whole tenor of thought and action.

Physicians tell us that about one fifth of one per cent of youth suffer from the frightful malady of epilepsy. The fierce nature of the convulsion, the long period of depression which generally ensues, are sufficient to bear down all but the most resilient spirits. In many cases, however, it does not necessarily deprive the person of a fair chance in life. Some of the world's foremost commanders — Julius Cæsar, Napoleon,[1] the Duke of Wellington, and

[1] In regard to Napoleon, the assertion that he suffered from epilepsy has been questioned. "The nature of his first and his last illness is well known," says the British Medical Journal, "but the precise character of his ailments between those two maladies remains uncertain. At the siege of Toulon in 1793 he undoubtedly contracted

Archduke Charles of Austria — appear to have been epileptics. At the battle of Wagram the archduke, it is said, had a seizure, which lasted about an hour; it was then that Napoleon gained the ascendency. At the critical moment the fate of two great armies was in the hands of two epileptics. Cambyses, the conqueror of Egypt, Alfred the Great, and two of the greatest poets of Europe — Tasso and Byron — were subject to this disease, as was also the prophet Mahomet. It seems, indeed, to occur frequently in persons of large mental power. The Greeks called it the "King's Disease" because, in their opinion, it was most likely to visit men naturally great or of distinguished position.

One of the most interesting as well as remarkable examples of successful combat with this malady is that of Alfred the Great, — the greatest of England's kings. His industry and the variety of his interests seem, even in this day of energetic endeavour, fairly bewildering. There is nothing in history more pathetic than the efforts of this sovereign amid

scabies when working at a cannon with a gunner who had that loathsome disease. The hero was unskilfully treated, and seems to have suffered from scabies for several years. During the latter part of his reign he was tormented with hemorrhoids, and to this trouble the failure of the Waterloo campaign has been ascribed. . . . Epilepsy is frequently mentioned as his special disorder, but on doubtful grounds. That disease in its *chronic* form is incompatible with the psychical and physical conditions which go to make up a great military chief. Napoleon certainly died of cancer of the stomach. The results of the post-mortem examination are carefully recorded."

disease and mental anxiety to secure social order and lift his people out of the degradation into which they had fallen.

From youth Alfred (849–901) was disciplined for the stern duties of leadership. Futhermore, the heroic bent of his mind had been stimulated by the poetic legends of his country and ancestors, recited by his mother, who was versed in lore of this kind. His greatest difficulty lay in finding any one to teach him, for the Danes had driven to other lands the lovers of learning who formerly were gathered in the monasteries the invaders plundered. He confessed later that it was one of the misfortunes of his life that when he was young and had the capacity for learning there were no teachers; but when he was older he was harassed by so many diseases unknown to physicians, as well as by the anxieties of sovereignty and by the pagans, that there was no time left for reading.

In passing from childhood to youth, sorely beset by the temptations of the flesh, Alfred prayed that he might have some bodily affliction which would aid him to subdue his passions. In answer to his prayer, a great illness fell upon him, which for many years kept him in a state of torture. Eventually overcome by the fear that he might be unworthy of his royal descent and an object of contempt to the people, while hunting one day in Cornwall, he entered the chapel of St. Gueriir. Here he besought God to have

mercy upon him and deliver him from his plague. Shortly after, in consequence, as he deemed, of his earnest supplication, all signs of his malady disappeared. But in his twentieth year, amid the rejoicings at his wedding, he was seized with sudden illness, the sight of which struck dumb the throng of revellers, many of whom thought the prince was the victim of some magic spell. Others believed that it was a return of his youthful trouble, which there is reason to suppose was of the nature of epilepsy. Thus at the threshold of his manly activities a grievous burden was laid upon Alfred and remained with him almost to the hour of his death. There were times when his diseases made him incapable of exercising either his mind or his body, but a short period of rest was generally sufficient to restore, if not his health, at least his courage, and in spite of his sufferings he was able, by force of his unconquerable will, to bear the cares of a distracted kingdom and the hardships of incessant warfare with implacable foes.

When Alfred succeeded his brother on the throne even his courage was daunted by the inrush of the Danes; nor did his brilliant victory at Cynuit reassure him, for the tide was stayed but for the moment, and to the terror and destruction wrought by the invading hordes was added discord and mutiny among the few inhabitants that remained. Much ingenuity has been expended in trying to conjecture what would have been the fate of England had

Alfred given up the contest. Of this act of desertion the heroic king was, however, incapable; indeed, he believed that he was chosen by Providence to be "the defender of the people and the champion of the cross." Later, deserted by his subjects, and accompanied only by his family and a few faithful followers, he was for a time alike lost to friend and foe in the lonely forest of Selwood.

There is a legend to the effect that during his sojourn in the marshy lowlands Alfred was sitting one day with his wife when there appeared at the door a poor man who asked for bread. Moved by compassion, he received the beggar as if he had been Christ himself; he shared with him his last loaf, and gave him the few drops of wine remaining in his flask. All at once the stranger disappeared, leaving his bread untasted and the flask filled to the brim with wine. . . . The next night St. Cuthbert appeared to Alfred in a dream, and told him that his troubles were at an end and that success would henceforth crown his efforts. In the morning the king crossed the river and, joined by a band of warriors, marched to victory. This incident suggests a visitation of the malady from which the king suffered. He may have had a slight seizure, or fallen into a certain "dream state" incident to epilepsy. It is common among epileptics to dream that their troubles are all over, and also that they will have no more seizures.

Although eminently successful as a general, the true bent of Alfred's mind lay in the direction of literature and the things that pertain to the spirit. After he had reconquered his kingdom, abandoning the dream of further conquest, he considered the practical questions of education, legislation, and the arts. He desired "that every free-born youth should abide at his books till he can well understand English writing." He personally superintended his schools, and young noblemen were taught in his palace together with his own children. That he might have worthy helpers, he invited eminent scholars from foreign parts to come to his aid.

Anxious to make known to his people the knowledge which hitherto had been limited to the clergy, Alfred, who only began to study Latin at the age of thirty-eight, translated into the mother tongue some of the most popular books of his day, — Boethius's "Consolations of Philosophy," Pope Gregory's "Pastoral Care," Orosius's "History of the Pagans," and Bede's "Ecclesiastical History of England."

There is something poetic and suggestive in the situation which led the king to invent the ox-horn lantern. While practising his acts of devotion, he found difficulty in reckoning the hours at night, also during the day when the clouds obscured the sun, and when the wind blew through the partitions, the windows and doors of the church, thus preventing the candles from lasting the required time.

The king caused the laws of Ina and Offa to be codified, and the ten commandments to become a part of the law of the nation. He presided in person in the king's court, and if his judges erred through ignorance, he informed them that they must either labour to learn their duties or resign their high calling. The influence of the church upon this newly awakened people is shown in many of its ordinances. Twelve times the value of stolen property belonging to God had to be paid in compensation.

The great tasks that Alfred set himself to accomplish would have been impossible had he not carefully guarded against the waste of time. This he did so effectually that, in addition to his kingly duties, he found leisure to study and translate, to commit poetry to memory, and to plan civil, ecclesiastical, and military structures; to learn and teach the goldsmith's art, and instruct falconers and dog keepers in their business. Even the songs of his people did not escape his attention; these were taught in the palace school, where his children were trained to become two of the ablest rulers of their time.

Alfred's remarkable life ended at the age of fifty-eight. In order to appreciate fully the character of this extraordinary man, it must be remembered that, according to his biographer, "he was constantly afflicted with the most severe attacks of an incurable complaint; that he had not a moment's ease, either from the pain which it caused him or from the gloom

which was thrown over him in the apprehension of its coming." [1]

It is one of the triumphs of modern science that it has succeeded in clearing away the ancient idea that mental disorders belong in a totally different class from ordinary bodily ills. It is difficult, however, to persuade the person who tends towards insanity to regard his affliction as one which he may fight by giving care to his bodily condition and by training himself in that exercise of the will which affords power to resist erratic impulses, also by bringing his mental work, as far as possible, into connection with muscular activities.

Although mental disease tends to destroy the will, — the very power needed to battle with it, — still, the power of the will, even in those cases in which actual insanity occurs, may abide and be trained to meet the exigences. In many instances, perhaps in most, the insanity is recurrent, and in the periods between the outbreaks the individual may have full possession of himself. The writer recalls the case of a person who in his lucid intervals was an active and thoughtful worker, and inasmuch as he took a philosophical view of his affliction, enjoyed for the larger part of the time a happy and useful existence.

[1] For further particulars see: The Life of King Alfred, by Dr. Reinhold Pauli; Life and Times of Alfred the Great, by Dr. Giles; History of England, by John Richard Green; Stopford Brooke's History of Old English Literature.

He learned to note the approach of his malady and to make careful preparations to secure himself and others from the violence to which he was then impelled. It was a pathetic but at the same time a noble spectacle to see him using the last moments of his sanity to prepare for the visitation which he expected. The life of Cowper furnishes an example of what, under like circumstances, should not be done; the injudicious treatment he received is, fortunately, now no longer possible.

William Cowper (1731–1800), the most popular poet of his day and the best of English letter writers, was born both a poet and a gentleman; but the advantages of birth and the gift of genius were more than offset by a weak body and a tendency to melancholy. These characteristics kept him on the verge of insanity during the greater part of his life. The "gentle mother" whom he "thought of with love and tenderness every day of his life" died when he was six years old, and in consequence he early tasted the bitter experiences of a private boarding-school, where his infirmities were fostered by the cruelty of a boy of fifteen. This lad chose Cowper as his victim, and inspired him with such dread that he feared to lift his eyes upon him, and "knew him better by his shoe buckles than by any other part of his dress." Later, at Westminster School, he was happier, and in spite of his delicate health, excelled

in football and cricket. Of his Latin teacher Cowper says, "I love the memory of Vinny Bourne," who must indeed have been a good-natured person; for he adds, "I remember seeing the Duke of Richmond set fire to his greasy locks and box his ears to put it out again."

In due course of time Cowper was called to the bar, but his tastes drew him irresistibly to literature. He wrote verses, and otherwise lived the life of a gay young man. There is no reason, however, for believing him to have been at this period the sinful, abandoned creature whom he describes in his confessions after his mind was diseased on the subject of religion.

The time spent in the attorney's office with Thurlow for an accomplice "in giggling and making giggle," and the vagaries of the Nonsense Club, are bright episodes in the sad drama of his life. The years which intervened between these events and the period at which he wrote his last original poem, "The Castaway," were years full of sorrow. His heroic struggles in resisting the approaches of insanity give to his life a unique interest.

Cowper was thirty-two years of age and was living in his lonely chambers in the Temple when his first attack of madness, followed by an attempt at suicide, came upon him. His insanity is usually ascribed to religious fervour, but Goldwin Smith refutes this idea. He says his malady was "simple hypochon-

dria, having its source in delicacy of constitution and weakness of digestion, combined with melancholy surroundings." The final catastrophe was induced by his preparations for a clerkship in the House of Lords. The dread of the examination and the fear of appearing at the bar of the House of Lords "plunged him into the depths of misery." He tried to jump into the Thames, but could not, then to swallow poison, but his hand was stayed, and, lastly, he tried to hang himself; the garter by which he was suspended broke and his fall brought the laundress to his rescue. "Let those whom despondency assails," says Goldwin Smith, "read this passage of Cowper's life and remember that he lived to write 'John Gilpin' and 'The Task.'"

It was after his attempt at suicide that he experienced religious horrors. Harassed by sleepless nights and days of uninterrupted misery, he considered himself damned, and suffered the torments of hell.

Cowper's recovery was accompanied by a burst of religious enthusiasm which found expression in the hymn entitled, "The Happy Change." His almost ecstatic bliss lasted several months when, according to his orthodox account, his happy communion with God was interrupted, or in the common-sense words of his biographer, "I began to dislike my solitary situation [at Huntington] and to fear that I should never be able to weather out

the winter in so lonely a dwelling." A change was at hand, perhaps the most momentous of his life. He formed a friendship with the Rev. Mr. Unwin and his wife, and eventually became a member of this "typical family of the revival." His days were spent in almost uninterrupted prayer and religious conversation, with an hour for exercise, during which Cowper walked, rode, or worked in his garden. The one redeeming feature in this monotonous life of preaching and praying was Mrs. Unwin's cheerful disposition.

After Mr. Unwin's death his widow and Cowper removed to the dull old town of Olney, that they might profit by the spiritual guidance of the Rev. Mr. Newton, who enjoyed the reputation of having driven by the fervour of his preaching a number of his listeners mad. He cannot be held responsible for Cowper's loss of reason, but the mode of life he prescribed was certainly damaging. Instead of a walk there was now a prayer-meeting, and despite his constitutional shyness, Cowper was made to lead in prayer, to visit the sick, and subject himself to other experiences little calculated to lighten the load of melancholy which rested upon him; moreover, he lived in a dilapidated old mansion; in winter the cellar was full of water, and his only exercise was pacing thirty yards of gravel "with the dreary supplement of dumb-bells." His life of isolation was unrelieved even by the pleasure of reading, for, urged

by poverty, he had sold his books. His principal mental occupation was the writing of hymns. That his breakdown did not come sooner suggests the possibilities of permanent mental health had the conditions been favourable; as it was, he again went mad and again attempted suicide. Unfortunately, Mrs. Unwin regarded the attack in the light of a visitation from the Evil One and therefore as not amenable to medical treatment. The world is nevertheless indebted to this friend for much of the pleasure Cowper's poems may have given it. After his recovery, seeing the need of some congenial occupation, she persuaded him to exercise to the full his poetical powers.

Besides writing, Cowper tried other expedients for giving healthy occupation to his mind. Indeed, when left to himself, his self-management in the intervals between his attacks is not the least remarkable part of his life. When Lady Hasketh came to visit him at Olney he called her attention to a box, a cupboard, and a table, all of his own workmanship; the cat made her home in the first, his three pet hares occupied the second, and beneath the table his shoes were deposited. He also resorted to drawing and gardening. He writes to his cousin: "My dear, I will not let you come till the end of May or the beginning of June, because before that time my greenhouse will not be ready to receive us, and it is the only pleasant room belonging to us. When

the plants go out we go in; I line it with mats and spread the floor with mats, and there you shall sit with a bed of mignonette at your side and a hedge of honeysuckles, roses, and jasmine, and I will make you a bouquet of myrtle every day." Despite the brave fight he made, the dull months of winter, which at Olney were foggy and cold, intensified his hypochondria. Yet again and again he plucked up courage and his active mind seized upon the smallest incidents wherewith to embellish life and entertain his friends. Lady Austen told Cowper the story of "John Gilpin." He lay awake all night laughing over it, and the next morning wrote the ballad which made him famous. She also inspired the lines on the loss of the "Royal George," and finally "The Task," — a poem deeply enshrined in the hearts of the home-loving people of England. Indeed, "what 'Paradise Lost' is to militant Puritanism, so is 'The Task' to the religious movement of the author's time." In it he depicts the earthly paradise of his imagination, which at that time he was in the act of realising more fully than fate ever again permitted. His conditions at least were not unbearable. "The Task" once more brought Cowper into contact with the world, and soon after its publication a much needed pension was conferred upon him.

Cowper always kept himelf as constantly occupied as the nature of his troubles would admit. He said: "Could I write with both hands and with both at

the same time, verse with the one and prose with the other, I should not even so be able to despatch both my poetry and my arrears of correspondence." "As to that gloominess of mind," he writes, "which I have had these twenty years, it cleaves to me even here (at Eartham), and could I be transported to Paradise, unless I left my body behind me, would cleave to me even there also. . . . My best times are the afternoon and evening; not because I am more spiritual or have more hope at these times than at others, but merely because the animal has been recruited by eating and drinking. . . . It is miraculous in my own eyes that, always occupied as I am in the contemplation of the most distressing subjects, I am not absolutely incapacitated for the common offices of life."

Under the stress of overwork, bad medical treatment, and Mrs. Unwin's failing health, which made her dependent upon him for the attentions which she had once bestowed, Cowper's maladies settled down upon him, until at last he had only occasional gleams of reason.[1]

From this graceful poet we turn to one of the most profound thinkers of Europe, whose mental aberrations were also associated with religious fervour, and his physical infirmities aggravated by it.

[1] For further particulars see: Life of Cowper, by Goldwin Smith; Life of Cowper, by Robert Southey.

"Excessive or deficient mental powers are alike accused of madness," says Pascal. "Nothing is good but mediocrity. The majority has settled that . . . to leave the mean is to leave humanity. The greatness of the human soul consists in knowing how to keep the mean. So little does greatness consist in leaving it, that it lies in not leaving it."

If "nothing is good but mediocrity" there would be no occasion to add Pascal's splendid name to our list of invalids. On the other hand, if he himself had kept closer to the "mean" his example would have been more helpful. It is certain that he made no concession either to the weaknesses of the flesh or the spirit, and that the austerities he practised helped to lay waste his physical being. More than this, the modern repugnance to stiff discipline withdraws one in a measure from the influence of a devotee whose faith urged him to fastings, flagellations, and hair shirts. In the reaction against asceticism men are now inclined to believe that heaven may be had for the asking, and that shining halos, unsolicited, may drop upon the heads of languid aspirants. Yet, however averse we may be to harsh measures, it is impossible not to respect Pascal's contempt for all forms of moral indolence.

Pascal was, as every man is, the child of his time, and it would have been as difficult for him to understand the modern theory of evolution as for the man of the twentieth century to share fully his belief in

the miracle of the holy thorn. His rapt asceticism was but a sign of his arduous struggle towards perfection. As opposed to the doctrine which enjoins control and the ennobling of the lower parts of our nature, he believed that in order to attain salvation the body must be held down, the passions crucified, temptations trampled upon, and obstacles ruthlessly thrust aside. But when all is said, his life and thoughts are more valuable than his theology; his intellect and accomplishments higher than any passing phase of religion and philosophy. The intellectual *élite* have long borne witness to Pascal's clear and penetrating mind, — as discriminating and logical as it was imaginative and bold. Wrestling with the problems of life, he sounded the heights and depths of man's achievements and omissions, and reached the conclusion that "the greatness of man consists in thought. Not from space would I seek my dignity, but from the ruling of my thought. I should have no more if I possessed whole worlds. By space the universe encompasses and swallows me as an atom; by thought I compass it." Again: "Man is but a reed, weakest in all nature, but a reed which thinks. It needs not that the whole universe should arm to crush him. A vapour, a drop of water, is enough to kill him. But were the universe to crush him, man would still be more noble than that which slays him, because he knows that he dies and the universe has the better of him. The universe knows

nothing of this. . . . All our dignity, therefore, consists in thought. By this must we raise ourselves, not by space or duration, which we cannot fill. Then let us make it our study to think well, and this is the starting-point of morals."

Speaking with the force of one already embarked in the affair of invalidism, he says: "When we are well we wonder how we should get on if we were sick, but when sickness comes we take our medicine cheerfully, — into that the evil resolves itself. We have no longer those passions and that desire for amusement and gadding abroad which were ours in health, but are now incompatible with the necessities of our disease. . . . Nothing troubles us but our fears, which we, and not nature, make for ourselves, because fear adds to the condition in which we are, the passions of the conditions in which we are not." No one knew better than this sick man how intolerable is the life of an invalid undignified by a purpose, and yet undiversified by the occupations which well people have. It was this conviction which made him set so great a price upon the attainment of moral goodness. "The knowledge of external things," he says, "will not console me for my ignorance of ethics in time of affliction; but the science of morals will always console me for my ignorance of external things."

Blaise Pascal (1623–1662), one of the greatest literary masters and most profound thinkers France

has produced, was born of a good family at Clermont-Ferrand. He seems always to have been delicate, and when a year old, a woman, reputed to be a sorceress, whom his father had refused to aid in a lawsuit, was supposed to have bewitched the infant, who began to fade away. The father at first paid no attention to the gossips, but at last, becoming alarmed, threatened the woman with the penalties of the law. She confessed to having bewitched the child, but insisted that there was but one remedy, — that of laying the charm on some one else, — a life for a life. Since the exchange with a human being was out of the question, she finally consented to take a cat; the family cat was therefore surrendered, and with the application of a plaster made with herbs, gathered before sunrise by a girl under seven years of age, bruised down, it is supposed, with the cat's blood, the sick infant temporarily recovered. "He was thus," says his biographer, "predisposed when the time came to accept the miracle of the holy thorn and other occurrences of a like nature." But notwithstanding the lifting of the sorceress's spell, he always remained feeble. Owing to his precarious health, his father was his sole instructor, and recognising the genius of the boy, purposely kept his tasks below his possibilities. Denied access to mathematical books, at the age of twelve he worked out for himself the propositions of Euclid as far as the thirty-second in the first book. When

older, despite wretched health and incessant suffering, he studied with uninterrupted devotion.

Before he was twenty-four his famous Puy-de-Dôme experiments on atmospheric pressure won for him a wide reputation. Among other brilliant achievements of these earlier years were his calculating machine, his contributions to infinitesimal calculus, the theory of the equilibrium of fluids, the mathematical theory of probabilities, the properties of the cycloid, and an original scheme for running omnibuses in Paris. Later he wrote the famous "Provincial Letters" and the immortal "Thoughts," — these, "the keen, subtle, finished conclusions of the reasoning faculty, faultless in form and formidable in inference," were the words of a suffering and dying man. The largeness of these thoughts, the precision with which they are unfolded, and the vivid conviction they betray, have held, and still hold, the admiration of the intellectual world.

After his father's death, Pascal moved to Paris, and there he underwent his second conversion. This event has been ascribed to an accident. Driving with some friend, his horses took fright at the Pont de Neuilly at a spot where there was no parapet, — they bolted and fell into the water; fortunately, the traces broke and the coach was stayed on the brink. But the experience which above all others ever remained sacred in his memory was that of a remarkable vision or ecstasy, during which for two hours he wrestled

with the Lord, as did Jacob of old. This struggle is commemorated in a few sentences in his "Profession of Faith," which, after his death, was found sewn in his doublet. Henceforth a complete change came over his life. He began to practise the self-denial, absolute submission to his spiritual directors, and gloomy austerities that darkened his days. For a time he lived at Port-Royal, and became a passionate champion of the society which is credited with being the greatest religious birth of the French church, characterised by singleness of mind, austere purity, and hatred of pretence and display. Already his sister Jacqueline was a nun of the Cistercian Convent of Port-Royal, and Mlle. Roannez (the woman with whom Pascal had been in love) was there also, with the view of taking the veil. It was a period when the moral laxity in France was such that in order to be virtuous at all men and women felt it necessary to seek a life of seclusion.

The disputes between the Port-Royalists and the Jesuits — on the theory of grace as laid down by St. Augustine and interpreted by Jansenius — gave Pascal his opportunity. His famous "Letters to a Provincial," opening up the moral theology of the Jesuits, are unsurpassed for irony, for facility, and distinction of style. They have been placed above Plato for wit and Lucian for artful raillery.

Pascal began his great book, the "Pensées," in his thirty-fifth year. It was a time when he was suffer-

ing from neuralgia and other nervous affections, which took from him the power of sustained labour. While racked with pain, he began the notes intended for a course of lectures at Port-Royal, but he was never able to work out or fit into place the thoughts written on scraps of paper. According to Dean Church, "Each line and word and marginal note of these thoughts have been arranged and re-arranged by some of the first intellects of Europe, by whom the book, which, after all, is no book, has been treated as one of the sacred scriptures of the world."

Since his eighteenth year Pascal had never passed a day without suffering, and now intolerable pains in his head and stomach were added to his other troubles. He gave up entirely his scientific pursuits, and knew no other science than that of perfection. "All that made and marked the matchless intellect of his time, the great geometer, the great physicist, the great mechanist, master, too, of the keenest satire, and the most unapproachable felicity of language, he, and all that he is," says Dean Church, "confesses the sovereign and paramount excellence of moral perfection." His indispositions, because of the admirable patience with which he suffered them, helped him towards this end. Thus, in conformity with his belief, his agonies became a part of his exaltation, and he was better with his infirmities than he would have been without them; indeed, they seem to have been to him a source of happiness, and

lacking suffering life would have been worthless. By a process of reasoning, his analytical mind reached conclusions which ordinary men, unconsciously, have adopted and acted upon. "So it is," says James Hinton,[1] "that men engaged in athletic sports spend their holidays in climbing up mountains, finding nothing so enjoyable as that which taxes their endurance and energy. . . . Little inconveniences, exertions, pains, — these are the only things in which we rightly feel our life at all."

At last, worn out by his infirmities, vigils, and the stress of severe discipline, Pascal died under his sister's roof, in Paris.

Leaving behind us the mystic, — the soaring idealist of another age, — we find in Pasteur a mind and nature so thoroughly sane and wholesome as to make him, as nearly as any one of our times, the representative of the modern ideal of a citizen and intellectual benefactor of mankind.

If, as a strong man, Pasteur (1822–1895) was an integral part of the life of a whole community, he was even to a greater extent bound up with the larger interests of humanity after the paralytic stroke which came to him in his forty-sixth year. This misfortune befell him while in the full swing of his useful career. He was teaching at the Sorbonne, organising the laboratory known as the Pasteur In-

[1] Life and Letters of James Hinton.

stitute, carrying on his researches in the treatment of wines, and projecting further experiments in regard to the silkworm disease. As a step towards convincing his opponents, although suffering at the moment from a severe tingling in his left side, he determined to read at the Académie des Sciences a treatise by Salembeni, who had verified his, Pasteur's, results. When he reached home he tried to speak, but in vain. After some days of anxiety it became apparent that, while his left side was paralysed, his mind was intact, and after the first shock it remained clear and luminous.

All of Paris flocked to learn the condition of the man who had laboured so beneficently in their interests. His health and work, in truth, had become a matter of vast moment, not to Frenchmen only, but to the whole world. So far as Pasteur was concerned he had but one solicitude, and that was to live long enough to solve the question of silkworm diseases.

Pasteur had no illusions about his condition; to be stricken down by hemiplegia at a comparatively early age, and in the zenith of his powers, made the future seem a hopeless blank. The contrast between his ardent soul and his helpless body was to those about him a touching spectacle. While waiting anxiously for the return of power to go on with his labours, he gathered encouragement from the lives of great men whose fate it had been to do

their tasks when round about them were dark waters. From Pascal's writings he derived consolation, not from those passages in which he exposes man's weakness, but where he declares "man is produced but for infinity." Sentiments of this kind were congenial to Pasteur, for his reverence for the order of the universe was great, and his faith in man's possibilities limitless.

It may be affirmed that Pasteur's whole previous life was a training for the mastery of adversity. From his youth upwards he showed a simple, straightforward, determined nature. He was a good son, an industrious student, slow to acquire, but sure of that which he once learned, and beneath his grave, almost shy exterior lay the latent fire of enthusiasm which never by any chance wore out or consumed his extraordinary patience.

At the École Normale he won his degree, as well as the respect of all who knew him, for even at this early age self-control and a sense of the power of the will had taken hold of his imagination. He writes: "To will is a great thing, dear sisters, for action and work usually follow will, and almost always work is accompanied by success." As he grew older Pasteur had no patience with those who doubt everything in order to have an excuse for doing nothing. He believed that no effort is wasted, that there are no vain prayers, and that if all is simple to the simple all is great to the great.

Experimental verification became Pasteur's watchword, and patient effort his practice. He won his laurels in the laboratory, and convinced that laboratories and discoveries are correlated terms, he called the former "the temples of the future." He was early recognised by other scientific men as a precise and brilliant experimentalist, an implacable logician, and an enthusiastic apostle.

Beginning his scientific life as a chemist, among other difficult subjects he took up the puzzling question of why one sort of tartaric acid would twist a beam of light out of a straight path to the right, another sort to the left. By chance he observed that a certain kind of yeast cell would thrive in the one medium, not in the other; and so this discovery led to the study of fermentation, and the latter to his immortalising discovery of microbes.[1] His interest in tartaric acid gave him no rest. "I shall go to

[1] As a practical consequence of Pasteur's first great discovery, namely, — each fermentation is produced by the development of a special microbe, — he gave rules for the manufacture of beer and vinegar.

As a result of the second — each infectious disease is produced by the development within the organism of a special microbe — he gave rules to preserve cattle from charbon, silkworms from the diseases which decimate them; and by means of the guidance it afforded, surgeons have almost completely effected the disappearance of erysipelas and the purulent infections which formerly caused so many deaths after operations.

His third discovery — the microbe of an infectious disease, cultivated under certain detrimental conditions, is diminished in its pathogenic activity; from a virus it has become a vaccine — has led to the preservation of horses, oxen, and sheep from the fatal anthrax disease, swine from the rouget disease which decimates them, and poultry from the cholera; rabies, at that time, it was also expected to conquer.

Trieste," he writes; "I shall go to the end of the world, . . . I must follow up the tartars to their origin." And so from place to place he travelled with a fervour that was almost romantic, until finally he ran down the eluding secret and established his theory. For theories Pasteur had great respect; without theories practice is, he claimed, but routine born of habit.

Pasteur's fascinating investigations were pursued with a sincere desire to benefit mankind; for while first and foremost a man of science, he was also a man of profound sentiment. In the agricultural regions, where the diseases he strove to dominate were ruining the farmers, he had to fight resolutely against prejudice and ignorance. Ultimately he triumphed in the rural districts, as well as in Paris, by his severe reasoning, and especially by his irrefutable microscopic experiments.

Such was Pasteur's worth and intellectual rank when the stroke of apoplexy, already referred to, threatened to end his labours. It was not, however, more than three months after the attack that, lying on the cushion of a railway carriage, he set out for Alais, the centre of the silkworm industry, to continue his scientific and patriotic work. Soon after his arrival he slipped and fell on a stone floor, and again for some time was reduced to a state of helplessness. A letter dictated at this time to his old master Dumas is a revelation of incessant mental

labour, and of imaginative insight verified by the most careful experiments.

The Franco-Prussian war was a terrible blow to Pasteur. All his life he had been an apostle of the peaceful strife of science, believing that the foremost nations will be those which shall be the first to progress by the labours of thought and intelligence. The horrible mortality among the wounded showed that while other nations had profited by Pasteur's theory of germs France had not availed herself of his discoveries, which elsewhere were modifying surgery. Lister himself wrote to Pasteur, thanking him for having demonstrated the truth of the germ theory of putrefaction, and thus furnishing the principle upon which alone the antiseptic system could be carried out.

Although he suffered fearfully from the moral and physical miseries of others, Pasteur now spent much of his time working in the hospital. In 1873 he wrote to a friend: "How I wish I had enough health and sufficient knowledge to throw myself body and soul into the experimental study of one of our infectious diseases." When warned that he was overworking himself, he answered: "It would seem to me that I was committing a theft if I were to let one day go by without doing some work." Indeed, he believed that not to work was to lose the object of living. When his colleagues tried to dissuade him from going to Alais, where a statue was

being raised to J. B. Dumas, his reply was, "I am alive; I shall go."

It was largely owing to his wife, the confidante of all his experiments, that a share of adjustment was possible between the restrictions of the doctors and the vast amount of work Pasteur did. She took pains that no outside cares should complicate his life or exhaust his strength.

In spite of his measureless services to humanity, Pasteur had his regrets and his longings. He writes to a fellow-worker: "My head is full of splendid projects; the war sent my brain to grass. Perhaps I am deluding myself; anyhow, I will try, — oh, why am I not rich, a millionaire? I would say to you, to others, come, we will transform the world by our discoveries. How fortunate you are to be young and strong; why cannot I begin a new life of work and study?" Again he says: "Our only consolation as we feel our strength failing us is to feel that we may help those who come after us to do more and do better than ourselves, fixing their eyes as they can on the great horizons on which we only had a glimpse."

At Villeneuve l'Étang, where dogs for experiment were kept, every morning, with steps rendered heavy by ill health and age, Pasteur went to the hydrophobia clinic to superintend the preparation of the vaccinal marrows, no details of which he allowed to escape him. The war which "sent his brain to

grass" can show no deeds of greater heroism than many which unproclaimed were daily enacted in his laboratory. One day, wishing to collect a little saliva from the jaws of a rabid dog, he and two assistants undertook to drag a mad bull-dog, foaming at the mouth, from its cage; seizing it by means of a lasso, they succeeded in stretching it on a table. There the two assistants held the ferocious animal by main force, while Pasteur drew, by means of a glass tube held between his lips, a few drops of the deadly saliva.

From Villeneuve Madame Pasteur writes on May 29, 1884: "Your father is absorbed in his thoughts, talks little, rises at dawn, and, in one word, continues the life I began with him thirty-five years ago."

The great chemist's feverish desire for work was now held in check by the growing feebleness of his body. He never complained of the state of his health, but it is easy to imagine how he longed for strength to complete the series of brilliant experiments which had revolutionised several branches of agriculture and pathology.

After the stroke of apoplexy, which threatened to leave the experimenter forever outside the door of his workshop, for twenty-seven years, under the discouragement of uncertain powers, Pasteur had laboured, and during that time achieved perhaps his most important contributions to science.

At the end of a long illness, famous, beloved, and applauded at home, admired and honoured in every civilised land, he died, with absolute faith in another life. Pasteur believed that the true guides of humanity are not those who dominate it by force, but those who serve it from devotion; among these he stands with the foremost.

There could hardly be a greater difference in the spiritual import of two lives than that which separates Leopardi and Pasteur.

Although in the accounts of his life nothing definite is said of hypochondria as an element in Leopardi's distress, it is difficult to believe that pessimism, such as blighted his days, could have existed independently of that "black humour."

The biographical page which tells of the physical and mental sufferings of Giacomo Leopardi (1798–1837), whose life, if not an example, may in this place at least serve as a warning. This illustrious youth was gifted with so great a mind that in whatever direction his powers were exerted he reached the highest excellence.

Leopardi's despondency, whether inherent, the result of ill health, or of uncongenial surroundings, resisted the influence of reason and found no solace, — such as poor Cowper derived from the affections and duties of everyday life. But to whatever cause his profound pessimism may have been due, it is

natural to believe that it might have yielded to more judicious treatment than any he received. At the present time gloom such as his would be regarded as a disease. Even then had more of the sunshine of life penetrated his home — the old Italian palace encumbered with debt and encrusted with obsolete traditions — the result might have been different.

At the age of eight Giacomo began the study of Greek and Latin; and after he was fourteen he carried on his studies without guidance, without encouragement, and without sympathy; and yet there are few who have equalled him in the extent to which he absorbed the spirit of the Greek masters or the learning of modern times. To his philological researches may be ascribed the felicity of expression which characterises all of his writings. He is, indeed, ranked not only as the greatest Italian prose writer of the nineteenth century, but as the "most masterly Italian prose writer of any century."

In the preface to an "Essay on the Popular Errors of the Ancients," written at the age of seventeen, Leopardi states that his citations, taken from some four hundred authors, were translated exactly from the Greek. In order to understand the magnitude of his labours, it has been suggested that we conceive of an English boy with the energy of character and the force of intellect to set himself the task of acquiring the Sanscrit language without

the resource of learned institutions or the aid of competent teachers.

During the period when most boys know the pleasures and benefits of outdoor life, Leopardi passed his time in his father's library. He soon became a confirmed invalid. Doomed to suffer the sad consequences of ill health, he was even obliged to forego the delight to which he had sacrificed so much, and often his exhausted vitality and defective eyesight obliged him to suspend his studies altogether. Describing the effect of his studious life, he says: "My appearance is become wretched, and in me that large part of man, most contemptible, which is the only part regarded by the generality, and it is with the generality we must deal with in this world . . . with these and other unhappy circumstances has fortune surrounded me, giving me such developments of the understanding that I might see them clearly and perceive just what I am, and of the heart, that by it I might feel that joy has no part or lot in me." Owing to the misfortunes of his country, his own poverty, and domestic infelicity, pessimism became with Leopardi a deep-seated menace. It is asserted, however, that in no instance can his melancholy be traced to private motives, "that nothing paltry ever found a place in his soul, and that he shows an entire indifference to wealth and luxury and a spirit too lofty for vanity."

It is possible that bigotry, stupidity, and slender means rather than deliberate unkindness were responsible for the harsh treatment the youth received at the hands of his father. In a daring moment he once asked for an allowance of two hundred and fifty crowns a year, but when hard pressed he wrote to his father: "I would submit to such privations that twelve scudi a month shall suffice for me. Death would be better, but for death I must look to God."

Although Leopardi called Recanati a desert, a cavern, a prison, tartarus, and a tomb, he spent the greater part of his life in the paternal abode, where, at least, he had the ordinary comforts which his ill health required. For his brothers and sisters he had a strong affection. "Love me, for God's sake," he beseeches his brother Carlo; "I have need of love, — love, fire, enthusiasm, life." "Heartless men," says De Sanctis, "have pretended that Leopardi was a fierce hater and enemy of the human race . . . love inexhaustible and almost ideal was the supreme craving of that angelic heart." Moreover, he made no bargain with the passions, but lived abstemiously and laboured untiringly, maintaining up to the last the struggle which keeps alive the soul.

De Sanctis makes Leopardi the originator and mouthpiece of the modern spirit of realism. His songs he regards as the most profound voices of that laborious period called the nineteenth century;

the tenacious life of the inner world his supreme originality.

In a letter to Chevalier Bunsen, Niebuhr thus speaks of his first interview at Rome with the young scholar: "Conceive my astonishment when I saw standing before me, pale and shy, a mere youth in a poor little chamber, of weakly figure, and obviously in bad health; he being by far the first, rather, indeed, the only, Greek philologian in Italy, the author of critical observations which would have gained honour for the first philologian of Germany and only twenty-two years old. He has grown to be profoundly learned without school, without teacher, without help, without encouragement in his father's sequestered home. I understand, too, that he is one of the first of the rising poets of Italy. What a nobly gifted people!"

In view of the limitations imposed by disease and the short time allotted for the fulfilment of his destiny, there is a strange pathos in the summing up of Leopardi's character by one of his countrymen, who speaks of him as "Sommo filologo," "sommo poeta," "e sommo philosofo."

In spite of his theory that "truth and reason do nothing but reveal misery and hopelessness," Leopardi makes a noble answer to Giordani, who maintained "that life is insupportable, and that its advantages are only for the wicked." "It is not so," says the poet, "for the best advantage of this world

consists in its nobler illusions of glory, love, virtue, and the like; and such illusions as these never come to the bad." And yet Leopardi failed to grasp the theory of compensation which so completely reconciled Leigh Hunt to a visitation of illness. The English poet writes: "One great benefit resulted to me from my suffering; it gave me an amount of reflection such as in all probability I should never have had without it; and if readers have derived any good from the graver portions of my writings, I attribute it to this experience of evil; it taught me patience; it taught me charity (however imperfectly I may have exercised either); it taught me charity even towards myself; it taught me the worth of little pleasures as well as the utility and dignity of great pains; it taught me that evil itself contained good; nay, taught me to doubt whether any such thing as evil, considered in itself, existed, — whether the desire which nature has implanted in us for its destruction be not the signal and means to that end, and whether its destruction finally will not prove its existence in the meantime to have been necessary to the very bliss that supersedes it."

Leopardi's malady, according to Ranieri, was indefinable. On the other hand, it is asserted that dropsy of the heart was the immediate cause of death.

Although his theories of life ate into his peace and happiness, and doubtless added to his ill health,

Leopardi took pains to deny that there was any connection between his pessimism and his bodily infirmities; he insisted that the former was the result of profound conviction founded upon reason and observation; being thus persuaded, he submitted to his fate and pursued with unrelaxed energy the task he set before him.[1]

As in the case of Leopardi, Gray's (1716–1771) life furnishes material both for inquiry and regret. His lack of an optimistic turn of mind he probably could not help, but his avoidance of healthy-mindedness suggests a deliberateness of purpose hard to forgive. The element of heroic fight, so conspicuous in the lives of other great invalids, was apparently wanting in him. The question arises whether, if applied in time, he — and others of his kind — might not have profited by the sting contained in the following words of Dr. William James:[2] "The attitude of unhappiness is not only painful, it is mean and ugly. What can be more base and unworthy than the pining, puling, mumping mood, no matter by what ills it may have been engendered? What is more injurious to others? What less helpful as a way out of the difficulty? It but fastens and perpetuates the trouble which occasioned it, and increases

[1] See Modern Italian Poets, by W. D. Howells; Essay on Leopardi by Wm. E. Gladstone; Life of Leopardi, by Brandes.

[2] The Varieties of Religious Experience, by Wm. James, p. 89.

the total evil of the situation. At all costs, then, we ought to reduce the sway of that mood; we ought to scout it in ourselves and others, and never show it tolerance. But it is impossible to carry on this discipline in the subjective sphere without zealously emphasising the brighter and minimising the darker aspects of the objective sphere of things at the same time. And thus our resolution not to indulge in misery, beginning at a comparatively small point within ourselves, may not stop until it has brought the entire frame of reality under a systematic conception optimistic enough to be congenial with its needs."

Although the author of the "Elegy written in a Country Churchyard," The Pindaric Odes, — "The Progress of Poetry," "The Bard," — etc., only lived to be fifty-five years of age, the span of his life was longer than might have been expected from his delicate constitution. His frequent illnesses, which interrupted his work and compelled him to seek diversion in travel, were due to hereditary gout; this disease finally reached the digestive organs and produced what might be called nervous dyspepsia, the violent convulsions caused by it finally ending his life.

Gray became Professor of Modern History and lived the greater part of his life at Cambridge, which he speaks of as a "silly, dirty place." He seems to have had more than his share of the

depression of spirits common to men who habitually dwell in university towns. Under the old system these places of learning are reported to have been as dull as a monastery; as destitute of the enthusiasm of the old religious devotee as of the zeal and sympathy of the modern teacher.

When Gray was but twenty-one he wrote to his friend West: "Low spirits are my true and faithful companions; they get up with me, go to bed with me, make journeys and returns as I do, nay, and pay visits, and will even affect to be jocose and force a feeble laugh with me; but more commonly we sit alone together, and are the prettiest insipid company in the world." Several years later he writes to the same friend: "Mine is a white melancholy, or rather *Leucocholy* for the most part, which, though it seldom laughs or dances, yet is a good easy sort of state; but there is another sort, black indeed, which I have now and then felt, that has something in it like Tertullian's rule of faith, — *Credo quia impossibile est;* for it believes, nay, is sure of everything that is unlikely, so it be but frightful, and on the other hand excludes and shuts its eyes to the most possible hopes, and everything that is pleasurable; — from this the Lord deliver us! for none but he and sunshine can do it." Again he writes: "The spirit of Laziness (the spirit of this place, — Cambridge) begins to possess even me, that have so long declaimed against it." "To be em-

ployed is to be happy," he adds. "This principle of mine (and I am convinced of its truth) has, as usual, no influence on my practice. I am alone and *ennuyé* to the last degree, yet do nothing. Indeed, I have one excuse, — my health (which you have so kindly inquired after) is not extraordinary. It is no great malady, but several little ones, that seem brewing no good to me."

With the exception of the short intervals spent in travel Gray's increasing ill health and depression of spirits kept him in a state of thraldom. He writes to Dr. Wharton two months before his death: "Travel I must or cease to exist. Till this year I hardly knew what mechanical low spirits were; but now I even tremble at an east wind." Matthew Arnold, in his essay on Gray, says, "What wonder that with this troublous cloud throughout the whole term of his manhood brooding over him and weighing him down, Gray, finely endowed though he was, yet produced so little." We have already cited instances enough to show that ill health alone is not sufficient to check productiveness, or even in any great degree to lessen energetic endeavour; there must therefore have been some other cause than unsound health or local surroundings, some inherent defect of organisation which lay at the bottom of the poet's sterility. He himself said, "If I do not write much it is because I cannot." The notion that he could only write at certain times and under favourable circumstances, Dr. Johnson,

with his sturdy intolerance, denounces as "fantastic foppery."

But whatever may have been the obstacle to Gray's productiveness, there was none to his power of acquisition. It was conceded that he was, perhaps, the most learned man in Europe. He knew every branch of history, both natural and civil. Criticism, metaphysics, morals, and politics were his studies, voyages and travels of all sorts his amusements; he had a fine taste in painting, prints, architecture, and gardening; was a good botanist, entomologist, and zoölogist; made researches in heraldry; was a fair musician; and was among "the first to discover the beauties of nature in England, marking out the course of every picturesque journey that can be made in it."

To Gray has also been conceded a high place as a critic. The chance estimate of authors thrown off on the spur of the moment in his delightful letters are worthy of St. Beuve himself. In a letter to a friend he says: "Shakespeare's language is one of his principal beauties. Every word in him is a picture. Pray put me the following lines into the tongue of our modern dramatists: —

> "'But I, that am not shaped for sportive tricks,
> Nor made to court an amorous looking-glass.'"

To me they appear untranslatable.

His Swiss friend Bonstetten thought "that Gray's

existence was poisoned by an unsatisfied sensibility, was withered by his never having loved, by his days being passed in the dismal cloisters of Cambridge, in the company of a set of monastic book-worms, whose life no honest woman ever came to cheer."

If the rare qualities of Gray's mind stand the test of criticism, certain qualities of his soul can also be laid bare with confidence. When his friend Nicholls heard of his death he wrote to his mother: "You know that I thought only of him, . . . wished him with me whenever I partook of any pleasure, and flew to him for refuge whenever I felt any uneasiness. . . . If all the world had despised and hated me I should have thought myself perfectly recompensed in his friendship."

Rich and famous, Gray's studious life glided quietly along, interrupted only by attacks of illness until the end came. He was buried at Stoke Poges in the country churchyard which inspired his immortal elegy.

Whatever defects may be laid at the door of Heine, he cannot be accused of self-repression or of encouraging low spirits in himself or others. "I first saw the light of the world," says the poet, "on the banks of that fair stream where folly grows on the green hills and is gathered and foot-trodden in autumn, then poured into casks and exported. Truly yesterday I heard somebody utter words of folly which were

imprisoned in a bunch of grapes in the year 1811, which I then saw growing on the Johannisberg."

"On his cradle," said Heinrich Heine (1797–1856), "there fell the last moonbeams of the eighteenth century and the first morning glow of the nineteenth." He further asserts that in his cradle lay his line of march for his whole life. He was born poor, a Jew and a German, — terrible conditions, he considered, for a poet of his genius and temperament at that period of transition in the world's thought. His rich uncle, Solomon, granted the poet a pension, which proved, however, to be a precarious income. What Heine said of Napoleon might have been said of himself: "In his head the eagles of inspiration built their eyries, while the snakes of calculation coiled and clustered in his heart." He was always in financial straits, neither his pension nor his earnings at any time being sufficient to free him from the operation styled in Paris, "tirer le diable par la queue."

Thanks to his rich uncle, Heine attended the universities of Bonn and Göttingen, before whose gates he mockingly said, "Ideas were kept for a few decades in quarantine." In the capital he became a member of the circle of which Rahel, the wife of Varnhagen von Ense was the centre, and for the first time the stripling in art found himself in congenial society. Rahel and her husband remained throughout his literary and political persecutions his faithful friends. In one of his letters to Varnhagen

the poet writes: "Have you not already in the years 1822–23 shown the same consideration when you treated me, the poor, sick, bitter, morose, poetic, and unendurable man, with a gentleness and goodness which I certainly had never merited in this life?" It would seem from the above allusion that Heine's health was never robust; it is known that even in youth he was racked with terrible headache; there were intervals, however, when apparently he was well, for in one of his letters he speaks of the opinions he held when he was "in good health and fleshy, in the zenith of his fat, and as haughty as Nebuchadnezzar before his fall." And again in his palmy days he is described by one of his friends as a jovial looking man, as brilliant and elegant as an abbé. Heine was small and slender, his face without any prominent feature, — the Jew not recognisable in him. His appearance and manner were distinguished, and in society he preserved something like a personal incognito, which concealed his real nature.

The publication of the "Reisebilder" made known a new light in the literary world, and "The Book of Songs" created a sensation such as only Schiller's "Robbers" had produced. The songs were set to music by Schumann and Mendelssohn. In these compositions, as in all that he wrote, Heine showed himself to be a superb literary artist.

The poet's nature, as set forth by his biographers, was complex and paradoxical; he had the passionate

energy of a Hebrew prophet, the sensuous feeling of a pagan Greek. More than this, he showed at times the mastery of a Puritan in the art of self-torture. His precision of thought marches hand in hand with dreamy sentiment, his tenderness often ends in frivolity and mockery. Although he scoffed at religion, there was a deep religious vein in his composition upon which he leaned with a heart of faith in his last illness.

He loved liberty and humanity with his whole soul, and, like others of his countrymen, cherished visions of constitutional government, a free press, peace, progress, and international fraternity. In politics he was both an aristocrat and a democrat, an admirer of republics and republicans, at times an admirer of despots, but he was always averse to mob rule, and for the German commonplace Philistine he had an abiding detestation.

Roused to enthusiasm by the July revolution in Paris, Heine went thither into an exile from which he never returned. He learned to look upon Germany as a step-mother, and Berlin became his pet aversion. Other poets showed the same dislike, for Goethe used to say that in Berlin, to keep your head above water, "you must have hair on your teeth and be, to boot, somewhat coarse." After a time Heine grew tired of the liberals, who journeyed from the fatherland to Paris. "These Germans," he said, "cured him of homesickness."

What Heine said of Loztz might with truth have been said of him. "He loved to take a sniff at all the pots and pans in which *der liebe Gott* is cooking the future." His writings were constantly under the ban of German censorship, which waited, "like a kite in the air, to capture and mangle each winged thought as it started from his brain." But in spite of ill health and the discouragement under which he worked, he laboured industriously to turn his literary resources to good account.

In his zeal for social improvement, Heine became a Saint Simonian; the leading formula of the creed was the *rehabilitation de la chair*. In the ordinary sense of these words it was superfluous to make a convert of Heine; with him the flesh had always been sufficiently in good repute; he believed heartily "in the severance of the bond which in Christian theology makes the body a Siamese twin of the devil," but the rehabilitation of the flesh by divine and human love was, according to St. Simon, to be used as a stepping-stone to boundless spiritual development.

If in his earlier days Heine's wit, pathos, and wisdom, his irony and persiflage furnished entertainment to cultivated Europe, his example of cheerfulness and courage during long years of illness, in connection with our subject, is of no less interest. Illness which to so fiery a temperament might have been counted upon to foster the worst that was in

him, proved on the contrary to be his benefactor; that is, in the sense that any evil, as moralists tell us, to which we do not succumb is a benefactor. When his body is finally laid upon his "Mattress-grave," it is then that spiritually Heine shows to best advantage.

The poet's last years were years of intense bodily pain, at times of excruciating agony. When it came to the worst, and the interrupted attacks of illness were prolonged to a twelve years' martyrdom, during eight of which he lay with spinal paralysis a prisoner to his bed, he showed heroic qualities, often those of the stoic, who, lacking faith in the gods and without enthusiasm, played his part as an artist. Heine was gifted with an indestructible delight in life. In one of his letters he says: "I am as sick as a dog and fight against sorrow and death like a cat; cats, however, have a tough life of it." At first he travelled in pursuit of health and consulted many doctors, hoping to find the skill which should loose him from the cold valetudinarian rôle so repugnant to him. In his house of martyrdom, or perhaps it were better to say his house of discipline, he exhibited an almost preternatural activity of spirit, — no degree of bodily suffering could quench his creative power; he jested and wrote to the last. During the time of his greatest affliction he published "New Poems," "Germany," "Atta Troll," three volumes of "Miscellaneous Writings," which

contained his confessions, and also the "Romances." "These, composed in the terrible conditions to which he was reduced, must be reckoned," says his biographer, "among the greatest spiritual marvels of literary history." It is noteworthy that his faculties remained unimpaired even amid convulsions which distorted his body. He once said to a guest: "It has been a great consolation to me that I have never lost the track of my thoughts, that my understanding is always clear. I hold this to be so essential for me that I have constantly occupied myself in the spirit during my whole illness, although my doctors dissuaded me from it as prejudicial. I think, however, on the contrary, that it has contributed essentially to keeping my condition from becoming worse. . . . It operated rather as beneficial in creating pleasure and exhilaration." "My body," he wrote at another time, "suffers great pain, but my soul is as quiet as a mirror, and has sometimes fine sunrises and sunsets." Again: "Only two consolations are left me, and sit caressingly by my pillow, — my French wife and the German muse. I stitch together a good many rhymes, and many of them coax away my pain like magic when I hum them to myself. A poet remains an idiot to the last." Heine generally contrived to write down his poetry; he did this painfully with a pencil in large letters. His prose he dictated.

One of his visitors asserts that she never saw a

man bear such horrible pain and misery in so unaffected a manner. "He complained of his sufferings," she says, "and was pleased to see tears in my eyes, and then at once set to work to make me laugh heartily, which pleased him just as much. He neither paraded his anguish nor tried to conceal it. I also thought him far less sarcastic, more indulgent, and altogether pleasanter than ever." His humour never deserted him. On one occasion, when the doctor was examining his chest, he asked him, "Pouvez-vous siffler?" He replied, "Hélas! non, pas même les pièces de M. le Scribe."

Heine enjoyed seeing his friends, or rather having them visit him, for in the darkened room in which he was obliged to live on account of his eyes, objects were but dimly discerned. Moreover, in order to see at all, he was obliged to raise with his hand the paralysed lid of the eye which still retained a confused perception of things.

At one time he almost completely lost the sense of taste, but fortunately it came back to him, for a relish for good living was the only physical comfort that remained, and a first-rate cook was kept by his wife that she might tempt his appetite. He was once heard to say, "This dish is so good it deserves to be eaten on one's knees."

Though steeped in torment, his love of life remained. "Oh God," he writes, "how sweet and snugly one can live in this snug sweet nest of

earth!" At last the poet succumbed, not to the disease from which he had so long suffered, but to an attack of indigestion. To the end he retained full consciousness, nor did his wit forsake him. A friend who had come to see him a few hours before his death asked him "if he was on good terms with God?" "Soyez tranquille," said Heine, "Dieu me pardonnera c'est son metier."[1]

Among the advocates of the "degeneracy" theory of genius there are doubtless some who would willingly capture Bunyan (1628–1688) and clap him in the ranks of those possessed by manias and phobias. To these a word may be said in regard to the mental state which at one time in his life might have furnished a basis for the classification. In his autobiography entitled "Grace Abounding to the Chief of Sinners" he lays bare a conscience so acutely sensitive as to approach the borderland of disease; but in so far as it was a terror to him he was not peculiar; for in his day other religious zealots were also martyrs to their consciences, and they, too, were brought face to face with menacing and ubiquitous devils. Moreover their inner promptings to despair, as in his case, was aggravated by the laws enacted by the presbyterian parliament and by the independents. These laws, by converting innocent pleasures into crimes, swelled the list of possible transgressions.

[1] Life, Work, and Opinions of Heinrich Heine, by Wm. Steigend.

They also served to persuade the public that all enjoyment was more or less a degradation, especially on the Sabbath, when men were forbidden many harmless recreations, — among these the ringing of bells for pleasure. This prohibition bore heavily upon Bunyan, for it was a pastime in which he delighted, and the temptation it offered caused him great agony of spirit and remorse. Blasphemy, too, to which in his unregenerate days he was addicted, — his untutored gift of eloquence finding vent in an astounding imprecatory vocabulary, — was punished in a manner to give it a grewsome fascination. A quartermaster in the army convicted of blasphemy was condemned to have his tongue bored with a red-hot iron, his sword broken over his head, and he himself to be dismissed from the service.

Fanaticism and folly were rampant. George Fox actually "spoke" with God, and by no means to the betterment of his manners; for "the Lord forbade me," he says, "to put off my hat to any, high or low . . . neither might I bow or scrape my leg to any." One William Simpson was moved by the Lord to go for three years naked, and again he was moved to put on sackcloth, and "to besmear his face, and to tell them [great people] so would the Lord besmear their religion as he was besmeared." James Naylor was adored as a God by his followers, and women marched before him singing, "Holy, holy, Lord God." Where a movement of fanaticism and

folly was so general not even the greatest could wholly resist becoming a part of that which was around them.

During his childhood and youth John Bunyan apparently was healthy, and in spite of his self-ascribed wickedness was free from the grosser vices. He was, however, much given to the ringing of bells, dancing, and playing hockey, all which amusements he indiscriminately reckoned along with swearing, lying, and blaspheming among his soul-destroying propensities, "the which, as I have with soberness considered since, did so offend the Lord that even in my childhood he did scare and terrify me with fearful dreams and visions."

If the acrid tone of the non-conformists had a share in filling Bunyan's cup of woe, some one of the many forms of neurasthenia, associated with bodily ill health, doubtless also played a significant part in his sufferings. "After my twenty-fifth year," he says, "I was much inclined to consumption, wherewith about spring I was suddenly and violently seized with much weakness in my outward man, insomuch I thought I could not live." Still later he speaks of being very ill and weak, and mentions great depression of spirits as characteristic of his state at all such times. It would appear as if Bunyan at no time after childhood enjoyed good health; he therefore lived constantly under the double stress of nervous troubles and a feeble body. On the other

hand his accomplishments, his industry in writing and preaching, and the severe mental strain of his twelve years' imprisonment (he was put in prison for having violated the law by acting as an irregular preacher), would dispose one to minimise his physical dissabilities did not the lives of other illustrious invalids exhibit great power of achievement when able to make their sufferings tributary to their wills.

After his real conversion Bunyan progressed from a state of spiritual and bodily unsoundness to one of comparative health. He became a Christian by the development of his whole being, refreshed and invigorated as by a draught from some healing spring.

For all his commerce with the supernatural Bunyan, the dreamer, showed himself an adept in practical affairs, or, to state the case more plainly, a man of good common-sense. Eloquent as a preacher, he was also remarkable for his skill in church management and discipline. Furthermore, he was impressive in appearance, dignified in manners, and dexterous in controlling men.

In an essay on Bunyan by Professor Royce,[1] he speaks of him as a nervous sufferer of the strong type. " He carries his burden," he says, " with heroic perseverance, and in the end won the mastery over it by a most instructive kind of self-discipline. . . .

[1] The Case of John Bunyan, in Studies of Good and Evil, by Joseph Royce, D. Appleton & Co., Publishers.

It is this sort of case that renders the study of nervous disorders so frequently associated with genius, a pursuit adapted, in many instances, not to cheapen one's sense of the dignity of genius, but to heighten our reverence for the strength that could contend with their disorders and that could conquer the nervous Apollyon on his own chosen battle-ground."

To return to Bunyan's everyday life: At the age of nineteen he married a girl as poor as himself. They had not so much as a dish or a spoon between them; but the wife had inherited from her "godly father" two religious books. "These books and my wife's speech," says Bunyan, "did beget within me some desire to religion." He resolved to begin in earnest the work of self-discipline. He left off swearing, gave up his games, and after a struggle abandoned dancing.

Once reflecting that his sins were very great and that he would certainly be damned whatever he did, he resolved to enjoy himself in the meantime, and to sin as much as he could in his life. He therefore took up his ball again (he was playing the game of tip-cat). "But," he says, "just as I was about to strike it a second time a voice did suddenly dart into my soul, which said, 'Wilt thou leave thy sins and go to heaven, or have thy sins and go to hell?' At this I was put into an exceeding maze . . . wherefore leaving my cat upon the ground, I looked up to heaven, and it was as if I had, with the eyes

of the understanding, seen the Lord Jesus looking down upon me. . . ." This power of vision remained, as the "Pilgrim's Progress" itself shows, and "without it our dreamer's genius," says Mr. Royce, "could not be conceived. In times of depression these visions in later years took on the shading of his mood, but in themselves they were of course signs, not of depression, but of poetic power." In other words, Bunyan was great, not in spite of his nervous sensibility, but because of it; indeed his infirmities may be said to have been the agents of his greatness.

Alongside of what is fantastic in Bunyan's mental make-up are also to be found the sober qualities which kept his nature in good tune and temper, and in the end enabled him to emerge from the "Slough of Despond" with mind and body steadied by the conflict through which he had passed. In the light of this experience of his, the title of "madman" which has thoughtlessly been bestowed upon him may henceforth be abandoned.

The foregoing examples of nervous invalids might be considerably extended; but a sufficient diversity of moral and mental attributes has been set forth to establish the fact that there is hardly any height of mental attainment necessarily denied a gifted person and one of strong endeavour by reason of the weakness of his body or his nervous discomfiture.

CHAPTER VII

THE BLIND AND THE DEAF

THERE can be no question that the human intelligence has been greatly elaborated by the influx of images from the outer world. If it were possible to take out of the mind that which is due to the work of eyes and ears, a vacancy would be left greater, perhaps, than that found in most idiotic persons. Therefore we might mistakingly suppose that whenever the individual was from birth deprived of sight and hearing, his mind would be a blank; but here once again comes the influence of inheritance. His ancestors from the remotest past have seen and heard, and the profit of their senses is stored up in the intelligence which they transmit to him. Hence a child, though born destitute of all perceptions either of sight or sound, living its life as absolutely excluded from the outer world as in the oubliette of an ancient prison, yet by inheritance may have all the essential qualities for intellectual and spiritual growth. The wonderful cases of Laura Bridgman and Helen Keller are by far the most instructive instances of this nature of which we have any record.

All the world is familiar with the story of the awakening of the famous blind mute, Laura Bridgman (1829–1889), after the long sleep of her faculties, into intelligent communication with her fellow-beings. Coincident with a violent fever which seized her at two years of age, she lost the senses of sight, hearing, smell, and almost entirely the sense of taste. Her whole system was so shattered there seemed little chance of recovery; she however rallied to the extent of being able to find her way about the house and immediate neighbourhood, and also learned to sew and knit a little.

At the age of eight, under the direction of Dr. Howe, Laura's education was undertaken at the Perkins Institute for the Blind. Here she was first taught to distinguish embossed letters by the touch, and then to read embossed words, learning to associate each word with the object for which it stood. At last it flashed upon her that she could communicate to others what was passing in her own mind. The discovery worked a happy transformation in her character. Within two years she had made such physical and mental progress that play became to her the resource it was to other children; previously an old boot took the place of a doll — she was even capable of amusing herself with imaginary dialogues.

Cut off from the rich harvest of the seeing eye, Laura's touch became so accurate that she was able to know people by that sense alone. This fact tends

to substantiate the theory advanced by Galton that in some persons the material of thought is mainly optical, in others auditory. "If a person is born to be eye-minded, blindness will mar his life more than if he were ear-minded originally; if ear-minded, deafness will maim him most. If he be constructed on a touch-minded or motor-minded plan, he will lose less than the others from either blindness or deafness. It may be that Laura and Helen were originally meant to be more 'tactile' and motile than their less successful rivals in the race for education." [1]

At the age of twenty Laura's education (she had acquired a knowledge of geography, history, and algebra) was finished, if not perfected, as the following extract will show. She writes: "Once I set a chair by the fireplace; I was trying to reach to the shelf to search for something. I dropped my central gravity down and scorched my stomach so terribly that it effectually made me very unwell and worrisome."

Laura eventually became skilful as a teacher of the deaf and dumb, counting this the crowning glory of her life.[2]

Although even the partial loss of any of the sense-organs separates the victim from many forms of human activities, yet if left with a mind unimpaired he has still a wide field of honourable occupation

[1] Laura Bridgman, by Wm. James. Atlantic Monthly, 1904.
[2] See Life and Education of Laura Bridgman, by Mrs. Lamson.

before him. In many cases, indeed, the failure of these senses has some small measure of compensation. Deprived of the dissipating influence of the changing outer world, the mind apparently gains in calmness and in the power of inward contemplation, — just as the observer who is about to study some faint nebula or other hardly visible object in the heavens prepares himself for the sight by hours spent in the darkness, so the perpetual night which enshrouds the blind seems to enable them to perceive much which is lost, or at most is confused, in the vision of others.

The philosopher Democritus, it is said, deprived himself of sight because he believed that the vision of the natural eye interfered with the seeing power of the mind; for, seeing with the naked eye is to see objects at a distance, while seeing with the mind's eye is to feel them close at hand and intimate. There have been many blind poets, chiefest among them Homer and Milton, each presenting a totally different attitude toward their calamity. We are apt to think of the itinerant minstrel, the blind Homer, wandering with serene brow from one to another of the seven cities that claimed to have been his birthplace. The simplicity and directness, the freedom and geniality that came to the ancient poet by divine gift, John Milton (1608–1674) was forced to acquire by sustained effort. Of the two elements in his nature, the Hebraic and Hellenic, the former is at first the

most loud spoken. We miss the tempering, reconciling spirit that we fancy lightened the burden of the greater bard. Milton asks: —

> "Now blind, disheartened, shamed, dishonoured, quelled,
> To what can I be useful? Wherein serve
> My nation, and the work from heaven imposed?
> But to sit idle on the household hearth,
> A burdensome drone, to visitants a gaze
> Or pitied object."

These words fall discordantly upon the ear, coming from one who deliberately set out "to justify the ways of God to man." Later his spirit stands more erect when he exclaims: —

> "What though the field be lost?
> All is not lost; th' unconquerable will."

And at last he reaches the golden discovery: —

> "A mind not to be changed by place or time.
> The mind is its own place, and in itself
> Can make a heaven of hell, a hell of heaven."

Eventually the sable cloud "turned forth her silver lining on the night," and Milton shines forth as a monument of fortitude and dignity.

In any estimate of the poet's character it must be remembered that he had other crosses to bear besides blindness. He was far from being fortunate in his domestic relations. The fault was not wholly with those of his household; he was stern and exacting, his sense of masculine superiority abnormal. In

his tract on divorce he paints the misery of a man tied to an uncongenial woman. Such an one he describes as "a familiar and co-inhabiting mischief," and claims "that since a man is a superior being, God pitied him, if unhappily married, more than he did the woman similarly situated." Moreover, Milton was drawn into the bitter controversies of his time, accommodating himself so completely to the prevailing asperity of speech and temper as to suggest that with poetry he had no further business; and yet, he asserts, "It could not have been from motives of vainglory that I tore myself from poetic dreams. Was there anything so glorious in fighting with blockheads and bishops that a man who had a private Elysium of poetic schemings and studies to rejoice in, and whose means permitted him to remain without anxieties or perturbations, that he should voluntarily leave that Elysium to become an anti-episcopal pamphleteer?" It was his "Pro Populo Anglicano Defensio," a justification of the king's execution, which made him famous throughout Europe; it was also the immediate cause of Milton's blindness. In the preparation of this work his eyesight was deliberately yielded up in the cause of his country. Fortunately, when blindness fell upon him and he was called upon to readjust his mode of life, the foundation for the task was already laid, — his mind was filled to repletion with classical learning, and trained by logical methods in the accurate use

of speech. His erudition and his grandeur of thought were the product of his whole previous life's discipline. "There is not," says Milton, "that thing in the world of more grave and urgent importance throughout the life of man than discipline." Without the perfect command of his powers, which severe training had given him, the feat of writing "Paradise Lost" would, under the circumstances, have been impossible. The poem was chiefly composed at night, and dictated to an amanuensis, — usually one of his daughters. It is noteworthy that Milton's poetical thought flowed freest between the autumnal and the vernal equinox.

Milton's friend Diodati once addressed him as "Thou wondrous youth," and as such he appeals to the imagination as perhaps no other poet has ever done. His genius, his great physical beauty, and his learning, all filled to the brim the cup of youthful promise. The home in which he was born was one of peace and comfort, pervaded by Puritan habits and modes of thought. Though attentive to business, his father was by no means negligent of culture. He was passionately fond of music, and music formed a large part of the family life, the poet himself learning to sing almost as soon as he could talk.

Already at the age of eleven Milton was looked upon as a prodigy. The famous St. Paul's School, where he spent five years of his life, was intended

to provide free education for the children of poor men to the number, at any one time, of a hundred and fifty-three; this being the number of fish which Simon Peter caught at his miraculous draught. It was while at St. Paul's that Milton's rash diligence laid the foundation of his after blindness. "My father destined me," he says, "while yet a little boy, for the study of human letters, which I seized with such eagerness that from the twelfth year of my age I scarcely ever went from my lessons to bed before midnight, which, indeed, was the first cause of injury to my eyes, to whose natural weakness there was also added frequent headaches."

The rooms lived in by Milton at Christ's College, Cambridge, now not infrequently shown to visitors, cause the mind to travel back to the days when two "fellows" were expected to sleep in the same room, and four "scholars," — the accommodations stretched by the use of truckle-beds and other devices. In those stern times, except in hours of recreation, students were required to converse with each other in Greek, Latin, or Hebrew. They were forbidden to enter taverns, to be present at boxing matches, dances, bear fights, or cock fights. In their rooms they were not allowed to read irreligious books, nor to keep dogs nor "fierce birds," nor to play at cards or dice, except for twelve days at Christmas, and then they were to play openly. At Trinity College there was a regular service of corporal punishment every Thurs-

day evening at seven o'clock, administered on such delinquents as had been reserved for the ceremony during the week. In the poet's day, however, the above rules were but seldom enforced. When he left the university Milton was acknowledged to be its most expert, most cultivated, and noblest Latinist.

There seems to be no doubt of Milton's great personal beauty. He was of medium height, strong and athletic, a practised swordsman, holding himself a worthy antagonist for any one. He carried himself in an erect, manly, and courageous fashion, showing a certain haughty yet not immodest self-esteem. The necessity of moral integrity to a life of truly great endeavour of any kind was a fixed idea with him, and to become a poet such as he aspired to be, there was a peculiar regimen. "Let him live sagely, soberly, and austerely," he said.

Under the dominion of Laud, the Church, for which he was originally destined, offered no temptation to the young Cambridge student, and yet had Milton chosen to enter the Church, he would have been, says Masson, "such an archbishop mitred or unmitred as England never had." Having decided to devote himself to literature, under the broad elms which shaded his father's grounds, the poet breathed those rural influences which yielded their immortal harvest.

He composed his "L'Allegro," "Il Penseroso," "Comus," and "Lycidas" before he became blind; he had also journeyed to Italy. At the Villa d'Arcetri

he visited the famous Galileo grown old. The sight of the great astronomer, frail and totally blind, was one which he never forgot. Indeed, his mind played upon the subject of blindness as if drawn to it by a presentiment of his own misfortune. He claimed that there came to Homer and Tiresias a higher and more prophetic vision when terrestrial vision was denied, and this was true in his own case, for in "Paradise Lost" are to be found some of his most splendid pictures. Many years after his Italian visit Milton refers to the great Tuscan in his description of Saturn's shield: —

> "The broad circumference
> Hung on his shoulders like the moon, whose orb,
> Through optic glass, the Tuscan artist views
> At evening from the top of Fiesole, etc."

More than ninety-nine subjects for his great epic were considered, — sixty-one derived from the Scriptures, — but ever since 1640 his mind had returned again and again to "Paradise Lost" (in some of his early college poems already "The king of hell swims the air on pitchy wings"), the subject which at last was to be the theme of the masterpiece.

Although "Samson Agonistes" is a splendid lament over the author's forlorn old age, yet the accounts of his last years suggest a pleasant and not uncheerful retirement, — solaced by music and by the attention of friends. Towards the end he was worn by attacks of gout, but in the intervals

of pain was not only clear of head and cheerful, but even joyous.[1]

There have been men of great executive capacity as well as poets who worked in darkness, and in whose accomplishments are found a surprising measure of patience and deliberation.

Henry Fawcett (1833–1884), the blind political economist, furnishes an example of unusual administrative power. Fawcett was not a precocious child. His first teacher, Mrs. Harris, said "she had never had so troublesome a pupil; his head was like a cullender." Henry confirms this statement. He writes to his mother: "Mrs. Harris says if we go on we shall kill her, and we do go on," he added, "and yet she does not die."

After leaving Cambridge Fawcett entered Lincoln's Inn. It was there that he complained for the first time that there was something wrong with his eyesight. At Paris he consulted two oculists, one of whom prescribed high living and the other a low regimen. He followed carefully the latter advice, but without benefit. Later he was told there was no reason why, after a year's rest, his eyes should not be as strong as they ever were. Thus encouraged, he writes: "Maria [his sister] will resign her needle with great composure to devote herself to reading to me. I shall thus get quite as much read-

[1] See Life of Milton, by David Masson.

ing as I desire, and I can well foresee that far from being a misfortune it may become an advantage, since it will perhaps for the next year induce me to think more than young men are apt to do." Like King Henry V, Fawcett had already learned that

> "There is some soul of goodness in things evil,
> Would men observingly distil it out."

He had yet to learn how to "convert all impediments into instruments, all enemies into power."

In September, going out shooting with his father, while crossing a turnip field, they put up some partridges which flew into an adjoining meadow into which the sportsmen had no right to enter. To prevent this happening again, Henry Fawcett, without being noticed by his father, changed his position. Shortly after, another covey arose. Mr. Fawcett, whose eyesight was beginning to fail, fired at a bird nearly on a line with his son. The greater part of the charge hit the bird, but two shot diverged, and, penetrating the tinted glasses the young man wore to protect his eyes from the sun's glare, entered each eye. Fawcett was blinded for life.

A few years later Fawcett said that he had made up his mind in ten minutes after the accident to stick to his main purpose as far as in him lay, but naturally he had many gloomy forebodings as to the possibility of a blind man without fortune and without family influence being able to enter upon a parlia-

mentary career. Nothing, he said, gave him so much pain in these moments as the letters of condolence which he received. The reiteration of the sentiment of resignation awakened a spirit of inquiry as to the nature of the inevitable, and induced in his case an effort to discriminate between a cheerful acceptance of fate and a cowardly abnegation of duty. A letter from his revered friend Hopkins struck the right note. "It would indeed," said Hopkins, "be not only useless but false to endeavour to console you by pretending that loss of sight, the having 'wisdom at one entrance quite shut out,' is not one of the greatest afflictions that can happen to us. It is so, and though especially so to those who delight in all the varied aspects and beauties of external nature, it cannot but be deemed alike to all, — one of the severest bodily calamities that can befall us; but depend upon it, my dear fellow, it must be our own fault if such things are without their alleviation. . . . I would suggest you directing your attention to subjects of a philosophic and speculative character, . . . political economy, etc. . . . The evil which has fallen upon you, like all other evils, will lose half its terrors if regarded steadfastly in the face with the determination to subdue it as far as it may be possible to do so." This letter was a summons to activity, to which Fawcett gallantly responded. Though crippled, he would not fall out of the ranks. He determined not to evade, but in some way to con-

quer his fate. Great as was his calamity, he rightly felt that with health, youth, and mental energy there was still much that could be accomplished. After the first struggle his sustained and courageous cheerfulness often led others to forget his misfortune. He resolved to do as far as possible whatever he had done before, and to be as happy as circumstances would permit. He deliberately learned to smoke, improved his taste for music, and acquired skill in playing cribbage and other games with cards marked for the purpose. "I remember," says his wife, "when I first met him, his saying how keenly he enjoyed existence." "There is one thing that I ever regret," he remarked, "and that is to have missed a chance of enjoyment."

Fawcett's genial and cheery way, it is needless to say, was not acquired without an effort. Although careful to conceal his low spirits, his face often showed his sadness. It was his custom to say that "the chief compensation, the silver lining to the dark cloud, is the wonderful and inexhaustible fund of human kindness to be found in this world, and the appreciation which blind people must have, at every moment of their lives, of the ready willingness with which the services they need are generously offered to them." He discovered compensations for his blindness in many ways. After his accident he tried to write as usual, but soon confined himself to dictation. He thought the habit, since it accustomed

him to produce a regular flow of grammatical sentences, was useful to him as a speaker. He also claimed that he had pleasures of his own, — associations with the light of the sun and moon unknown to him before he was blind.

Fawcett was always a vigorous walker. His friends, in their efforts to keep pace with him, were compelled, in order to equalise the strain upon the lungs, to engage him in a steady flow of talk. He also kept up his skating, and in later years insisted that every one of his household, with the exception of an aged cook, should join him in the amusement. As Mr. Stephen says: "It was through his amusements, which were naturally limited, that he sought to quiet the worrying persistency of thoughts which occupy business hours. No small part of the art of living consists in learning to command the spells which lay these vexatious cares." His benevolence was shown in his willingness to listen to old stories. Indeed, he would frequently ask to have familiar anecdotes repeated, from which apparently he would derive as much pleasure as from those that were new.

The blind man's appointment to the professorship of political economy at Cambridge showed that he was not only respected at his university, but was deemed capable of discharging its difficult duties. "Among other charms at Cambridge," he said, "each man's tastes and prejudices were known to his comrades.

Parts of the dialogue were assigned and could be taken up at once without loss of time." He advocated extending the benefits of the university local examinations to women. He remarked "that he did not urge that women are naturally equal to men, but that they should have equal opportunities for developing whatever faculties they possess." Later Fawcett's daughter stood number one in the examination for the mathematical tripos at Cambridge, whereas her father, in a corresponding examination some years previous, was only seventh on the list.

Fawcett claimed that in order "to make men better," you must make men richer, — that is, less abjectly poor, less stunted and shackled by the pressure of poverty. This was the vital problem of political economy. Like Spinoza, he wished neither to mock, to bewail, nor to denounce men's actions, but to understand them. "Free Trade and Protection" is counted his ablest book.

His blindness was deemed by many of his friends an insuperable objection to political life. It was asked, how could he catch the speaker's eye; how could he understand local questions, as, for instance, the laying out of streets? Fawcett explained that he could inform himself thoroughly by putting pins in a map and thus making his measurements.

During the contest which preceded his election to Parliament, at a meeting where all was disorder, Fawcett said: "You do not know me now, but you

shall know me in the course of a few moments." He then told his listeners how he had been blinded; and how he knew that every lovely scene would be henceforth in impenetrable gloom. "It was a blow to a man," he said, "but in ten minutes I had made up my mind to face the difficulty bravely. I will never ask for sympathy, but I demand to be treated as an equal." He never again referred to his accident in public, and probably would not have done so then had not his infirmity been urged as an insurmountable barrier to success. The manly recital of his struggle carried his audience captive. He soon proved beyond doubt that his blindness was no disqualification for his office, and in the course of time his popularity became only second to that of Gladstone.

He always looked back with unalloyed pleasure to the time he gave to the preservation of Epping Forest and the commons, which were being sacrificed to private and public greed. The village green was fast becoming extinct, the villagers' children had no other playground than the street, while he himself was often obliged to walk so far that by the time he came to an open space he wanted no more recreation. In this connection it may be mentioned that attached to Fawcett's old-fashioned house in London was a small garden and two greehouses, where he cultivated flowers and vegetables; these he sent to friends, to show the superiority of the London climate for their growth.

In the discussion of Indian finance Fawcett's skill in examining expert officials was truly extraordinary in a blind man. A political opponent asserted that he considered these speeches the most remarkable efforts that he had ever heard. In order to fix in his mind all the cardinal facts and figures, he would get a friend to go over the ground again and again until the whole statement was clear and definite.

Fawcett became Postmaster-General, and but for his blindness, would have received a place in the Cabinet; — a member of the Cabinet was called upon to see many confidential papers; to use other eyes for reading these was considered inexpedient. His administration of the post-office was characterised by the most humane and business-like conception of the duties of the office. He regarded it as an engine for diffusing knowledge, expanding trade, increasing prosperity, encouraging family correspondence, and facilitating thrift. To maintain the public spirit of the ninety thousand people in his department was with him one of his most important duties. Despite his blindness, he established beyond all dispute his unusual qualifications for a great administrative office.[1]

A hard piece of bread thrown at random in the college Commons Hall struck William Hickling Prescott (1796–1859), the future historian, in the left

[1] See The Life of Henry Fawcett, by Leslie Stephen.

eye and immediately destroyed the sight of that organ. It was thus at the outset of his career as a student that this young gentleman of handsome appearance and a merry disposition was brought face to face with a great calamity. The accident eventually resulted in almost the entire loss of sight, for the other eye became sympathetically affected, and it was only by means of the greatest care of his general health that he was able to see even imperfectly. For several years he travelled in Europe. While at the Azores, "from November 1 to February 1," says his biographer, "he was in a dark room, — six weeks of the time in such total darkness that the furniture could not be distinguished; and all the time living on a spare vegetable diet, and applying blisters to keep down active inflammation. But his spirits were proof alike against pain and abstinence. He has often described to me the exercise he took in his large room, — hundreds of miles in all, — walking from corner to corner, and thrusting out his elbows, so as to get warning through them of his approach to the angles of the wall, whose plastering he absolutely wore away by the constant blows he thus inflicted on it. And all this time, with perhaps the exception of a few days of acute suffering, he sang aloud in his darkness and solitude with unabated cheer. Later, when a little light could be admitted, he covered his eyes and listened to reading."

Having early resolved, in spite of his misfortune, to devote himself to historical writing, he set himself to master the ancient and modern languages as the servants of his future work, and in the course of time discovered within the range of Spanish history his appointed task.

Prescott and his first secretary together journeyed through the seven quarto volumes of "Mariana's History," the one unable to understand what he was reading, the other often only able to guess at the meaning of what he heard. The future historian fully realised the difficulties he must encounter in the literary profession. He especially doubted his power of narration. He once said to a friend: "I never had inventive faculty in my life; all I have done in the way of story telling, in my later years, has been by diligent hard work." And yet his vigorous and direct narrative is that which gives charm to his writings. At the suggestion of Thierry, the famous blind French historian, Prescott cultivated the art of dictating, and eventually by constant practice gained the power of carrying a great deal in his memory. His habit was to consider and arrange in his mind the whole of a chapter, and then transfer it to paper by means of the noctograph, an ingenious writing arrangement contrived for the blind; or he dictated to his secretary. His experience suggests, in the case of the blind, the need of making special effort to cultivate in youth the mnemonic art. A mind

thus trained may retain so great a store of memories that the intelligence has sufficient material for its work without depending too much on books.

Taking much to heart Johnson's remark in his "Life of Milton," that no man can compose a history who is blind, Prescott said, "although I should lose the use of my vision altogether, by the blessing of God, if my ears are spared me, I will disprove the assertion, and my chronicle, whatever other defects it may have, shall not be wanting in accuracy and research. The remarks of Johnson which first engaged my attention in the midst of my embarrassments, although discouraging at first, in the end stimulated my desire to overcome them." "A strain of the nerve of the eye," as he called it, put Prescott's courage and patience to a new and severe trial. He was compelled for four months to pass almost all his time in a darkened room, and ever after to avoid strong lights. On the occasions when he was obliged to be especially careful, while being read aloud to, he would place himself in a corner of the room with his face to the angle and his back to the light. Again and again he had to consider the possibility of losing the use of his eye altogether, and yet, even in that event, he never abandoned the idea of going on with his history. He sometimes asked himself: "What do I expect from it? Come to the worst, and suppose the thing a dead failure, and the book ["Ferdinand and Isa-

bella "] born to be damned, still it will not be all in vain, since it has encouraged me in forming systematic habits of intellectual occupation and proved to me that my greatest happiness is to be the result of such. It is no little matter to be possessed of this conviction from experience."

As a preliminary to writing, a list of several hundred volumes had to be read or consulted in foreign languages. Not content with mastering these works, Prescott examined with painstaking perseverance all the original sources of information, otherwise he felt that he could not be certain of his foundation. It was by no means easy for him to acquire the habit of industry indispensable to success. Work was often painfully distasteful to him, even after he had been long accustomed to it; nor is it surprising that such should have been the case when we consider the great labour involved in all his undertakings, — especially the difficulty of consulting numerous authorities in foreign languages for almost every sentence. In addition, he was forced to exercise unceasing care during forty years to preserve his health and the failing powers of the eye that remained to him. His example furnishes an extraordinary spectacle. "It is," says his biographer, "no less one full of instruction to those who think that life without a serious occupation can be justified, either by the obstacles or the temptations it may be called upon to encounter. Behind all this intellectual labour, and

deeper than all this, lay, as its foundation, his watchfulness over his moral and religious character, its weaknesses and temptations."

When "Ferdinand and Isabella" was published Prescott's habits were settled for life; he had, we are told, a perfectly well-defined individuality, — a fine amalgam of the fairest and strongest qualities of human nature; and much of what went to constitute this individuality was the result of his infirmity of sight and of the unceasing struggle he made to overcome the difficulties it entailed upon him.

In regard to his method of composition, he records: "Never take up a pen until I have travelled over the subject so often that I can write almost from memory . . . think concentratedly when I think at all . . . think continuously and closely before taking up my pen, make the corrections chiefly in my own mind, not attempt to overlook my noctographs, very trying to the eyes. If I would enjoy composition, write well, and make progress, I must give my whole soul to it, so as not to know the presence of another in the room, going over the work again and again (not too fastidiously), thinking when walking and dressing." The result of this self-discipline was remarkable as to the masses of material he could hold in abeyance in his mind and the length of time he could keep it there. Sometimes he would carry in his memory, before beginning to

write, as much as would fill fifty-six pages of printed text.

There are few who knew how laboriously Prescott worked. On one occasion a connection, whom he was in the habit of meeting familiarly, affectionately urged him to undertake some serious occupation as a thing essential to his happiness, and even to his respectable position in society. At that moment he had been eight years labouring on his great work, and yet, though tempted to do so, he did not confess how he was employed. Nor was the strict government to which he subjected his time and his character generally known. In his study everything went on by rule. His table and his papers were kept in the most perfect order; the furniture always arranged in the same way. When his work was over and he joined his family, the change was complete. "The game could not be begun, the entertaining book opened, until he had taken his place in the circle which his presence brightened." Those who met him at the dinner-table would have been surprised to learn that his wine was carefully measured, and if he seemed to indulge himself as much as others did, it was all upon a system as rigid as that which regulated his spare diet at home. It was the same with his style; he wrote easily and rapidly, but the rules and principles which guided him in the smallest details had been so early and deeply settled as to have become an instinct. His infirmity, indeed,

was the secret of a manner which has been found at once simple and eloquent. Having prepared his material down to the smallest minutiae in his memory, he wrote it off in the freest manner without any opportunity to change the phraseology as he went along, and with little power to alter it afterwards.

In an article in the "North American Review," written by Prescott for the purpose of bringing the "Boston Asylum for the Blind" to the attention of the public, he says: "The blind, from the cheerful ways of men cut off, are necessarily excluded from the busy theatre of human action. Their infirmity, however, which consigns them to darkness, and often to solitude, would seem favourable to contemplative habits and the pursuits of abstract science and pure speculation. Undisturbed by external objects, the mind necessarily turns within, and concentrates its ideas on any point of investigation with greater intensity and perseverance. It is no uncommon thing, therefore, to find persons sitting apart in the silent hours of evening for the purpose of composition, or other purely intellectual exercise. Malebranche, when he wished to think intensely, used to close his shutters in the daytime, excluding every ray of light. . . . Blindness must also be exceedingly favourable to the discipline of the memory. Whoever has had the misfortune, from any derangement of the organ of sight, to be compelled to derive his knowledge of books less from the eye than the ear, will feel the

truth of this. The difficulty of recalling what has once escaped, of reverting to or dwelling on the passages read aloud by another, compels the hearer to give undivided attention to the subject, and to impress it more forcibly on his own mind by subsequent and methodical reflection. Instances of the cultivation of this faculty to an extraordinary extent have been witnessed among the blind." And again: ". . . There is no higher evidence of the worth of the human mind than its capacity of drawing consolation from its own resources under so heavy a privation, so that it not only can exhibit resignation and cheerfulness, but energy to burst the fetters with which it is encumbered."

Having completed "The Conquest of Peru" and "The Conquest of Mexico," Prescott next decided to write the history of Philip II; but his years and infirmities having increased, his progress was slow. He writes: "Without eyes I cannot read. Yet I constantly try to do something and as constantly strain the nerve. An organic trouble causes me pain, if I sit and write half an hour, so that I am baffled and disheartened, and I find it *impossible* (shall I say the coward's word?) to get up a lively interest, — the interest I felt in happier days in my historical studies. . . . Yet I am determined to make a trial before relinquishing the glorious field on which I have won some laurels. . . . I will make up my mind to dispense with my eyes nearly all the time.

I will dictate, if I cannot write. I will secure three hours every day for my work, and, with patience, I may yet do something."

Seriously troubled with rheumatism, Prescott moved from Nahant to the shore of Lynn Bay, where the sea breezes were less sharp and damp. There was one drawback, however, to the new home at Lynn, — there was hardly a tree on the grounds. The shade that was so essential to his comfort was only to be found beneath the branches of an old cherry-tree. "Here," says his biographer, "round the narrow circle of shade which this tree afforded him, he walked with his accustomed fidelity a certain length of time every day, whenever the sun prevented him from going more freely abroad. There he soon wore a path in the greensward, and so deep did it at last become that now — four years since any foot has pressed it — the marks still remain, as a sad memorial of his infirmity. I have not infrequently watched him, as he paced his wearisome rounds there, carrying a light umbrella in his hand, which, when he reached the sunny side of his circle, he raised for an instant to protect his eyes, and then shut it again, that the suffering organ might have the full benefit, not only of the exercise, but of the fresh air; so exact and minute was he as to whatever could in the slightest degree affect its condition."

On the very last day of his life he talked of be-

ginning again in good earnest the history of Philip II, but after walking about the room for a little exercise, and listening at intervals to his secretary, who read aloud, Prescott was struck with apoplexy, and shortly this right noble gentleman and scholar died.[1]

The want of sight in some cases seems to be no serious impediment even to manual dexterity. Stendhal mentions a young cabinet-maker of Ingolstadt who, having lost his sight, amused himself in constructing pepper mills, so exact and graceful in form they were thought worthy of a place in the gallery of curiosities at Munich. There is an account of a blind man, a native of Tuscany, who was able to model wax portraits of great excellence; and also of Giovanni Gambaseo, who, having lost his sight at the age of twenty, although utterly ignorant of the elements of sculpture, suddenly was seized with a desire to practise that art. Handling carefully a marble figure of Cosimo de' Medici, he formed one of clay astonishingly like it. His capacity for sculpture developed to such a degree that his works were much sought after. It was through the sense of touch that Francis Huber ascertained the form and size of bees, and with the same facility he was able to recognise them by their humming while flying in the air. He proved

[1] See Life of William Hickling Prescott, by George Ticknor.

by his laborious work that the will is the man quite as much as the intellect, and, in taking himself for what he was, without reference to men gifted with sight, demonstrated the power of self-reliance. "Let a man then know his worth," says Emerson, "and keep things under his feet. Let him not peep or steal, or skulk up and down with the air of a charity-boy, a bastard, or interloper in the world which exists for him," — whether blind or not, we may add.

In his life of Francis Huber, Professor De Candolle, the distinguished botanist, says: "Those who are the least adventurous or inventive are pleased with the exhibition of examples by which the bodily or mental strength of their fellow-creatures has been enabled to conquer obstacles which appeared to be insuperable. . . . Such examples ought to be preserved for the honour of humanity, and for the encouragement of those who are inclined to turn aside at the prospect of difficulty. It is right to demonstrate from time to time to young people that, if patience and resolution are not, as some have asserted, the only elements of genius, they are at least its firmest auxiliaries, its most powerful instruments, and that they are faculties so important as to lead not infrequently, in the search for truth, to the same results as genius itself."

Francis Huber (1750–1830) was remarkable even in youth for his powers of observation; his mind

even then became stored with facts which served him well when his misfortune came upon him. At the age of fifteen, having pursued his studies and pleasures too ardently, his general health and his sight began to fail. It had been his custom after working hard during the day to read romances at night by a feeble light, — sometimes by the light of the moon. His father took him to Paris for medical aid. Dr. Tronchin sent the youth to the country to work outdoors, and in every way live the life of a peasant, the treatment resulting in the complete re-establishment of his health. Dr. Venzel, the oculist, however, considered his eyes incurable and refused to hazard an operation for cataract.

Huber's early and romantic marriage to Marie Aimée Lullin, under a thin disguise, has been celebrated by Mme. De Stäel, in her novel entitled "Delphine." During the forty years of their union Marie never swerved in her devotion. She was her husband's reader, his secretary, his observer. In his old age he said of her, "As long as she lived, I was not sensible of the misfortune of being blind."

Although many blind poets, philosophers, and calculators have contributed their share to the world's pleasure and profit, it was reserved for Huber to attain renown as an accurate observer. It is generally admitted that naturalists of unimpaired vision have added little of importance to the observations

of this sightless student of the habits and economy of the honey-bee. With the assistance of his servant, Francis Burnens, remarkable for his sagacity and his devotion to his master, Huber set to work to verify old opinions concerning bees and to ascertain new facts. Aided by the memories of his youth and by the testimony of his wife and friends, taking the mean among many witnesses, he corrected the mistakes of his assistant, whom he ultimately trained to rigorous accuracy of seeing. By constant practice Huber was enabled to form in his mind a true picture of the minutest descriptions communicated to him, and by means of his invention of glass hives, which allowed the labours of the community as well as of a particular bee to be followed in detail, many delicate observations were made possible.

The publication of "Nouvelles Observations sur les Abeilles" produced a strong impression among naturalists, not only on account of the nature of the facts it contained, but because of the singular difficulties the author struggled against in acquiring them. Huber's observations confirmed the theory, then doubted, that bees can transform at pleasure the larva of working bees into queens by appropriate food. He likewise proved that wax escaped in a laminated form between the rings of the abdomen of bees, and discovered how they prepare it for the construction of combs and cells; also their dependence, like other animals, upon oxygen gas, and their

manner of ventilating, or renovating, by the motion of their wings, the vitiated atmosphere of hives. He described the fierce combat of queens, the massacre of drones, and all the singular and even tragic occurrences which take place in the honeyed houses of these busy insects.

Huber was able to make not only the precise statements of the naturalist, but to relieve them of all baldness by the poetic imagination which had helped him to his conceptions. Indeed, his style is so clear and vivid that the reader almost fancies he sees the objects which were visible only to the mind's eye of the investigator. Huber loved poetry and music, for which he had considerable talent. In addition to these gifts, judging from the masterly touches in his descriptions, his friend De Candolle believed that, had he retained his sight, like his father, his brother, and his son, he also might have become a skilful painter.

Among other recreations Huber enjoyed walking, — even solitary promenades, guided by threads which he had caused to be stretched through all the rural walks about his dwelling. He knew the direction in which he was going by the knots tied in the thread. His great capacity for happiness, under circumstances which too often create only vain regrets, may be counted as one of his chief virtues. He was never the first to speak of his blindness; nor did he ever complain, always ranking courage, resignation, and

cheerfulness among his first duties. Furthermore, he inspired the devotion which made it a pleasure for all who lived with him to lighten the burden of his misfortune. He indulged himself in sundry amiable illusions; in his conversation and in his writings he would frequently say: "I have seen, I have seen with my own eyes"; and if a woman's voice was agreeable she always appeared to him as he remembered her at the age of eighteen. In his old age he said, "One thing I have never been able to learn, — that is, to forget to love." He was loving and beloved to the end of his days.

De Candolle concludes the sketch of his friend's life in the following words: "I have always admired the sagacity of his researches, his resolute perseverance, his love of truth, and his resignation at once mild and stoical. I loved his amiable conversation, and his benevolent disposition. While living, I consecrated his name, to the gratitude of naturalists, by giving it to a genus of beautiful trees (Huberia Laurina) from Brazil. . . . Happy shall I be if those who have known and loved him find the portrait correct, — if young people learn from his example the value of resolute determination in the direction and concentration of labour; and especially, if those who are subject to the same misfortune should learn, by the example of Huber, not to yield to discouragements on account of their condition, but to imitate his admirable philosophy."

The modern art of reading speech from the lips enables deaf persons who preserve vision to avoid some of the difficulties arising from this affliction. One of the most distinguished scientific men of this country, F. B. Meek, the paleontologist, whose work advanced our knowledge of the history of the continent and particularly of its ancient animals, was entirely deaf, and without the power, through lack of training, of reading speech from the movement of the lips; nevertheless he led a life of great activity, both in the field and in the study. Another naturalist, born in Switzerland, though long a resident of the United States, was deaf from early childhood. Both these investigators maintained singularly active relations with their fellow men, and their careers do not appear to have been impaired by the obstacles with which they had to contend.

The principal difficulty which besets the deaf is the loss of sympathy with their fellow men. Excluded from the current of speech in which his neighbours live, the sufferer is apt to become suspicious, and to believe that the conversation, but half understood, is directed against himself. Those who have successfully met this evil have done so by cultivating the sympathies and by fostering that instinctive response to others which give charm to life. Whatever other shortcomings may be laid at Harriet Martineau's door, the lack of interest in her fellow-beings was not one of them; indeed, the

whole of humanity was swept along in the current of her sympathetic thought.

Somewhere in her writings this remarkable woman says: "I can popularise though I cannot discover or invent." At any rate she was slow in discovering, or, in other words, "finding" herself, and those by whom she was surrounded were even more belated in recognising her powers. The greater part of the first twenty years of her life is a record of morbid sensibility, misery, and disappointment, most of which was due to a want of understanding on the part of her family.

"I really think," says Miss Martineau (1802–1876), in her autobiography, "if I had once conceived that anybody cared for me, nearly all the sins and sorrows of my anxious childhood would have been spared me." On the other hand, in her youth, at least, Harriet had neither the pleasing appearance nor the sweetness of nature that wins affection. According to her own account, her temper was very bad, "downright devilish." But what could be expected of a poor child whose health was seriously impaired by having been almost starved to death in infancy (the wet-nurse concealed the fact that she had lost her milk), and with whom three senses out of the five were imperfect? She was unable to smell or taste, — only once she tasted a leg of mutton, and thought it delicious. Under these circumstances the terms of life could not be otherwise than hard.

Harriet Martineau's youthful fortitude was taxed not only by deafness, but by constant indigestion, languor, and muscular weakness. Besides all this, "never," she says, "was a poor mortal cursed with a more beggarly nervous system . . . sometimes I was panic struck. . . . I would never cross the yard to the garden without flying and panting. The starlight was the worst; it was always coming down to stifle and crush me." It is wonderful that she should have emerged from these trials with her moral nature strengthened and her power of self-management developed to a remarkable degree. When she was eighteen her deafness suddenly increased. "I should then have used a trumpet," she said. "The special duty of the deaf is, in the first place, to spare other people as much fatigue as possible; and, in the next, to preserve their own natural capacity for sound and the habit of receiving it."

This ugly duckling, and the one of the eight Martineau children from whom least was expected, received little in the way of compensating benefits; for a short time only her methodical mind received systematic training under a competent teacher. Her history, literature, and biography were all learned at home by one of the sisters reading aloud while the others sewed. Harriet herself became proficient in needlework, and in shirt-making could "stitch regularly, only two threads of the finest material taken for each stitch." While she was working as a seam-

stress, carrying on her studies by snatches, and often late at night, her brother James, the other distinguished member of the family, was pursuing uninterruptedly his college education. Although fond of domestic occupations, Harriet afterwards lamented that so much of her time and strength had been wasted in the mere mechanical task of sewing.

At the age of twenty she began to write. Her first book, entitled "Devotional Exercises," is noteworthy because of the absence of petitions for personal benefits. She maintained "that, since it is impossible for us to foresee how far our highest interests may be served or hindered by changes in our external circumstances, it is not for us to attempt to indicate or even form a desire as to what these circumstances shall be." She herself preferred to leave her fate to the unquestioned direction of a higher power. But in spite of her theory she could then hardly have believed that the time would ever come when she would say, as she does in her Autobiography: "Yet here am I . . . at the end of a busy life, confident that this same deafness is about the best thing that ever happened to me; — the best in a selfish way, — as the grandest impulse to self-mastery."

After her father's death, unwilling to lead a life of shreds and patches, Harriet took up literature in the spirit of a professional. Her constant sedentary occupations, together with her sorrow at the death

of her *fiancé*, brought on a severe attack of illness; but through it all she remained industrious. On the many occasions when she suffered physically, her friends marvelled at her capacity for work. While admitting that she sometimes did too much, she said: ". . . my best aid and support in the miseries of my life has been work, — in the intellectual labour which I believe has done me nothing but good." Such was her merciless industry that the maid who was with her the last eleven years of her life once said: "I should think there never was such an industrious lady; when I caught sight of her just once, leaning back in her chair with her arms hanging down, and looking as though she was n't even thinking about anything, it gave me quite a turn. I felt she *must* be ill to sit like that."

At the age of twenty-nine, having touched her first wide success in a series of stories giving to the masses information upon the science and art of society, she found herself famous; statesmen and politicians praised the clearness of her presentation of political questions; titled people and members of parliament competed for the little time she could give society, — time necessarily limited, for she had promised to write a story every month. The scene of each story, laid in different parts of the world, required a special knowledge of all the conditions of that region. The feat of thirty-four volumes produced under these circumstances by a delicate

woman within as many months is an extraordinary accomplishment.

But of all her literary productions the one entitled "Life in the Sick-Room" is that which most closely concerns our theme. It shows not only courage, calmness, and common-sense, but that certain aspects of life, hidden to other invalids, were revealed to her consciousness, — or perhaps it were better to say, entered into her philosophy; for she was guided by the light of reason, which, if it yielded no alluring warmth, at least gave her moral strength. "It is no contradiction," she says, "that some are soured by suffering. . . . If he [the invalid] lives long enough, however, to change his mood, there is every probability that the benignant influences which are perpetually at work throughout life and nature will dissolve and disperse his troubles." Moreover, recognising the snares of unreasonable dissatisfaction with one's self, she believed the lowering tendency to self-contempt to be a serious fault; for without self-respect there can be no healthy freedom of spirit, and where the spirit is morbidly sensitive to failures and dangers, the anxiety spreads from the sufferer to all about him.

The five years of illness which gave rise to these helpful meditations followed a period of domestic trouble. At that time, living with Miss Martineau in London, was her mother, whose growing blindness aggravated her naturally irritable temper; a

brother, who had failed in business and was suffering from depression of spirits; and an aged aunt, who needed to be protected from the aggressions of the other two. To earn her livelihood and keep peace in this household was more than she could do; she became a confirmed invalid.

At Tynemouth-by-the-sea for long years Miss Martineau suffered, endured, and worked. She never indulged herself in idleness from a sense of the littleness of what she could do; for she was convinced, and in her writings emphasised the fact, that nowhere are habits of regular employment and moral enterprise more necessary than in the life of the invalid. Although ill, she was not disposed to assume that her work and usefulness were ended. As she truly observes: "No one knows when the spirits of men begin to work or when they leave off, or whether they work best when their bodies are weak or when they are strong."

In looking back over the year which has gone, — a year of pain and thick brooding care, — she asks: "Where are the pains now? — not only gone, but annihilated. What remains? All the good, and for the reason that the good is indissolubly connected with ideas, — with the unseen realities which are indestructible. . . ." Miss Martineau explains her meaning by a particular incident that occurred on a night of severe pain. Having sent her servant to rest, from mere misery she wandered from her bed-

room to the next apartment. On looking through the window-curtains, she beheld the rising sun glorifying the green fields and the market-garden below, where the owner, a comely woman, was making ready to feed her pigs and let out her cows. At the moment her easy pace and complacent survey of her early greens presented a picture of well-being so opposed to the invalid's state as to leave an ineffaceable impression. "At the end of the year," says Miss Martineau, "the pains of all those hours were annihilated, — as completely banished as if they had never been; while the momentary peep behind the window-curtain made me possessor of this radiant picture for evermore. This is an illustration of a universal fact. That brief instant of good has swallowed long weary hours of pain."

This same market-garden continued to be a source of pleasure, — from radish-sowing in early spring, to the latest turnip and onion cropping; and because of these the coming of frost and rain were events of abiding interest. More than this, she was perpetually reminded, by her outlook on the ordinary modes of life, of the fulness of pleasure derived from trifling incidents, of the infinite ingenuity of human love.

Again she says: "We find, after a trial of many methods, that we learn to endure and achieve less by direct effort than by putting ourselves under influences favourable to the state of mind we seek,

. . . Instead of invoking despair, by exhorting to impossible flights, wise guardians will rather remove the sufferer into an element of new enterprise, or one which may gradually exhaust and destroy his parasitical foes of habit. . . . We find that we must put our trust in abiding influences, and not in a succession of efforts."

For this reason, "When an invalid is under sentence of disease for life, it becomes a duty of first-rate importance to select a proper place of abode. . . . Many a sufferer languishes in a room whose windows command dead walls, so that he sees nothing of nature but such sky and stars as show themselves above the chimney tops. . . . The invalid should provide for sustaining and improving his attachment to nature, and for beguiling his sufferings by the unequalled refreshments she affords."

Miss Martineau chose for her own home the seashore, where she could gain a sense of freedom, and also enjoy the inestimable help of a telescope in taking in the ever changing beauties of the earth and the heavens, as well as the homely occupations of her neighbours. Whatever her bodily state might be, she received pleasure and consolation from outward circumstances. She writes: "We sick watchers have, as it were, a property in the changes of the season. . . . Should I actually have quitted life without this set of affections if I had not been ill? I believe it. And, moreover, I believe that my interest

in these spectacles of nature has created a new regard to them in others. I see a looking out for the rising moon among the neighbours, who have possessed the same horizon-line all their lives, but did not know its value till they saw what it is to me. . . . When in former days had simple, natural influences such power over me?"

At last, having become greatly exhausted, Miss Martineau's friends urged her to try mesmerism. At the second attempt, "within two or three minutes," she says, "a delicious sensation of ease spread through me . . . before which all pain and distress gave way. I could no more help exclaiming with pleasure than a person in torture crying out with pain; I became hungry, and ate with relish for the first time for five years." For the next ten years she enjoyed such good health that in comparison she learned that in no previous period of her life had she known health. She was able to walk sixteen or twenty miles a day, and to ride a camel hundreds of miles through Palestine and Damascus.

At the "Knoll," the charming home she created for herself near the village of Ambleside, she led a social but thoroughly methodical life during the twenty-one years of suffering which followed the period of release from invalidism. In the management of her house there was everywhere neatness and comfort. Her two acres and a half of land was farmed to such advantage that she was able to keep

two cows, some hens, and to have her own vegetables. Her experiment, conducted on so small a scale, became famous, and in order to satisfy public curiosity, she wrote a book on the subject, entitled, "Health, Husbandry, and Handicraft." Thrifty as she was, she differed from her neighbour Wordsworth as to the manner of entertaining. He advised her to give her visitors tea, and if they wanted anything more to make them pay for it. Besides her writing, housekeeping, and gardening, she found time to lecture on economic and historic subjects to the working classes in the neighbourhood. Her helpful interest indeed went out to every phase of public life and to every class of persons.

Having entered upon journalism, never did she write so abundantly or with so high a success. The marvel was that a sick woman, often suffering intensely, shut up in her house in a remote village, could keep so in touch with world-wide interests. While under the death sentence herself she was able to write: "To think no more of death than is necessary for the winding up of the business of life, and to dwell no more upon sickness than is necessary for its treatment, or to learn to prevent it, seems to me the simple wisdom of the case." She regretted the waste of time, thought, and energy that she had been guilty of in the course of her life in dwelling on the subject of death.

As one of her friends said after her decease, "She

has taught the beautiful science of bearing infirmity and suffering without losing dignity." Moreover, she furnishes a remarkable example of what a human being, under the stress of wretched health, can accomplish. A list of all the essays and books Harriet Martineau wrote would fill too large a space to be given here.

"The best and most beautiful things in the world cannot be seen or touched, but just felt in the heart." These are the words of the blind, deaf, and dumb girl, Helen Keller, the awakening of whose soul and intelligence is one of the great educational feats of our time. In "The Story of my Life"[1] all who are similarly afflicted will find comfort and inspiration. Moreover, if the success of her endeavours furnishes the particular form of encouragement needed by the blind and deaf, her example may also serve to arouse in the healthy a sense of their shortcomings in face of the benefits Nature has lavished upon them.

The house in which Helen Keller's first days were spent was, she says, "completely covered with vines, climbing roses, and honeysuckles." It was a fit nursery for the poetic spirit, which grew to be so entirely in sympathy with all that was beautiful. Indeed, her sensitiveness to every form of natural

[1] The Story of my Life, by Helen Keller, published by Doubleday, Page & Co., New York.

and spiritual beauty goes far towards substantiating the theory that there is some mysterious compensation for the loss of the ordinary means of receiving and communicating impressions, — a sensitiveness of the inner faculties that makes the common contacts often seem in comparison clumsy and inadequate.

During the first nineteen months of her life Helen caught glimpses of the beautiful world about her. Then came the illness which deprived her of sight and hearing, and "plunged her into the unconsciousness of a new-born babe."

At first, through the sense of touch and smell, she learned many things, and feeling the need of communication with others, began to make crude signs. At the age of five she could fold and put away clean clothes when they came from the laundry, and distinguished her own from the others. Sometimes she would stand between two people who were conversing and touch their lips and try to understand; she would also move her own lips and gesticulate furiously. "These efforts," she says, "made me so angry at times that I kicked and screamed until I was exhausted."

The great event in Helen's life was the coming of her teacher, Miss Sullivan. "Have you ever been at sea," she asks, "in a dense fog, when it seemed as if a tangible white darkness shut you in, and the great ship, tense and anxious, groped her way toward the shore with plummet and sounding-line, and you

waited with beating heart for something to happen? I was like that ship before my education began, only I was without compass or sounding-line, and had no way of knowing how near the harbour was. 'Light! give me light!' was the wordless cry of my soul, and the light of love shone on me in that very hour."

Miss Sullivan's patience and ingenuity can only be fully realised by reading her own account of her efforts to enlighten the child placed under her care. The relation which was finally established between teacher and pupil suggests a sort of dual personality, — an emotional and intellectual Siamese twins. Miss Keller says in her book: "I cannot explain the peculiar sympathy Miss Sullivan had with my pleasures and desires. Perhaps it was the result of long association with the blind. Added to this, she had a wonderful faculty for description. . . . As my knowledge of things grew I felt more and more the delight of the world I was in. Long before I learned to do a sum in arithmetic or describe the shape of the earth, Miss Sullivan had taught me to find beauty in the fragrant woods, in every blade of grass, and in the curves and dimples of my baby sister's hand. She linked my earliest thoughts with nature, and made me feel that "birds and flowers and I were happy peers."

At the Perkins Institution for the Blind Helen experienced great joy in talking to the other little blind children, in what she calls "my own language."

"Until then," she says, "I had been like a foreigner speaking through an interpreter." Her efforts to learn to speak show how indomitable was her will and courage. "In the first place," she says, "I laboured night and day before I could be understood even by my most intimate friends; in the second place, I needed Miss Sullivan's assistance constantly in my efforts to articulate each sound clearly and to combine all sounds in a thousand ways. . . . In reading my teacher's lips I was wholly dependent on my fingers: I had to use the sense of touch in catching the vibrations of the throat, the movements of the mouth, and the expression of the face; and often this sense was at fault. In such cases I was forced to repeat the words or sentences, sometimes for hours, until I felt the proper ring in my own voice. My work was practice, practice, practice. Discouragement and weariness cast me down frequently; but the next moment the thought that I should soon be at home and show my loved ones what I had accomplished spurred me on."

Amid many disadvantages she studied diligently, having always at heart the desire to go to college, — a desire which to many of her friends seemed chimerical. "A potent force within me," she says, "stronger than the persuasion of my friends, stronger even than the pleadings of my heart, impelled me to try my strength by the standards of those who see and hear." At last, surmounting the manifold diffi-

culties of preparation, and especially of the entrance examinations, which for technical reasons connected with her infirmities were peculiarly trying, Miss Keller entered college. If college did not entirely meet her expectations, she emphasises the value of the precious, one might almost say portentous, lesson of patience which she was obliged to learn.

"In the classroom," she says, "I am of course practically alone. The professor is as remote as if he were speaking through a telephone. The lectures are spelled into my hand as rapidly as possible, and much of the individuality of the lecturer is lost to me in the effort to keep in the race. The words rush through my hand like hounds in pursuit of a hare, which they often miss. But in this respect I do not think I am much worse off than the girls who take notes. If the mind is occupied with the mechanical process of hearing and putting words on paper at pell-mell speed, I should not think one could pay much attention to the subject under consideration or the manner in which it is presented. I cannot make notes during the lectures because my hands are busy listening. Usually I jot down what I can remember of them when I get home. I write the exercises, daily themes, criticisms, and hour tests, the mid-year and final examination, on my typewriter, so that the professors have no difficulty in finding out how little I know. . . . Very few of the books required in the various courses are printed for

the blind, and I am obliged to have them spelled into my hand. Consequently I need more time to prepare my lessons than other girls. . . . There are days when the close attention I must give to details chafes my spirit, and the thought that I must spend hours reading a few chapters, while in the world without other girls are laughing and singing, makes me rebellious; but I soon recover my buoyancy and laugh the discontent out of my heart. For, after all, every one who wishes to gain true knowledge must climb the Hill Difficulty alone, and since there is no royal road to the summit, I must zigzag it in my own way. I slip back many times, I fall, I stand still, I run against the edge of hidden obstacles, I lose my temper and find it again, and keep it better, I trudge on, I gain a little, I feel encouraged, and get more eager, and climb higher, and begin to see the widening horizon. Every struggle is a victory."

Strange as it may seem, museums and works of art are to Miss Keller a source of pleasure and inspiration. "A medallion of Homer," she writes, "hangs on the wall of my study, conveniently low, so that I can easily reach it and touch the beautiful, sad face with loving reverence. How well I know each line in that majestic brow, — tracks of life and bitter evidences of struggle and sorrow; those sightless eyes seeking, even in the cold plaster, for the light and the blue skies of his beloved Hellas, but seeking in vain."

The theatre also makes its contribution to her happiness. "I enjoy having a play described to me while it is being acted upon the stage far more than reading it, because then it seems as if I were living in the midst of stirring events."

Her memory of people is such that she retains the characteristic that makes one person's hand-shake different from another. Speaking of Mark Twain, she says, "I feel the twinkle of his eye in his hand-shake."

It is only occasionally that Miss Keller sounds the minor key. She writes to a friend: "I sometimes feel discontented . . . but, as you know, my heart is usually brimful of happiness. The thought that my dear Heavenly Father is always near, giving me abundantly of all those things which truly enrich life and make it sweet and beautiful, makes every deprivation seem of little moment compared with the countless blessings I enjoy." Again: "Words are powerless to describe the desolation of that prison-house or the joy of the soul that is delivered out of its captivity. When we compare the needs and helplessness of the blind before Dr. Howe began his work, with their present usefulness and independence, we realise that great things have been done in our midst."

Miss Keller is still young, and presumably has not attained her full powers; it is therefore not unlikely that she will make further literary contributions,

valuable for their form, and, coming from a mind whose relation to the world is exceptional, more valuable still for their substance.

It would be superfluous to attempt to enforce the lesson of contentment and helpful work so well shown in the preceding lives, — lives which, burdened by a grievous weight of obstruction, might so easily have been stranded between the currents of disease and laziness had not mental energy and a firm will come to the rescue.

CHAPTER VIII

RETARDED DEVELOPMENT

THERE is one form of disability closely connected with invalidism, though not always properly to be classed as such, — the slow rate of development of the minds of many youths. The speed with which the intellectual capacities unfold themselves in different individuals varies greatly; the contrast between the precocity of Macaulay, Byron, Pope, or Alexander Hamilton, and the condition of ordinary children during the first ten years of their lives, is indeed very great. Along with the precocity exhibited by some children is found the phenomenon of retardation, if we may so term it, in which the mind, though of normal constitution, develops slowly. Thus it may come about that a well-organized youth of sixteen years of age does not attain to the normal measure of intellectual development until he is twenty-six, and on this account our general scheme of education and our whole system of judgment of youths is inapplicable to him. It is even worth while to realise that this variation in the speed with which the intellectual power is developed in nowise implies a

lack in mental parts, though with ill-considered treatment it may sometimes lead to results as disastrous as if the individual were deficient in intelligence. If a boy of sixteen has the condition of mind proper to a child of ten he is apt to be considered a dunce, and if the retardation is protracted till one and twenty, he is likely to accept himself as such and abandon all further intellectual effort. It may indeed obscurely dawn upon him as late as thirty that he has mental powers, but it is likely that his habits and occupations have by that time become fixed and further growth is made impossible.

Some teachers hold that where a youth is likely to be of slow development, it might be well to make him understand that he cannot expect too much of himself in early years, and therefore should look forward to accomplishment at a later period than his mates. Failing in mental distinction, it is best to help him to success in some line of physical activities, and thus give at once occupation to the mind and something of that sense of power which is so important to him. Above all, he should not be allowed to enter into competition with those of his own years, lest there should arise a sense of feebleness, which more than anything else is calculated to arrest the normal development of the mind. Some observation of the classes of Harvard University has led to the conclusion that in a thousand men the average departure in the rate of development is

as much as a year or perhaps eighteen months, and that in that number of young men we can always find a score or more youths of what might be called average capacity who are as much as four years apart from their associates in mental power. The proper treatment of persons of slow development requires an amount of care on the part of the natural guardians which cannot usually be given to him. Unhappily the system pursued in our schools and universities makes the task difficult even in those cases where it is possible to expend money without stint on the education of the retarded youth. A boy is pushed forward to college without any reference to his rate of mental or physical growth; when in college it is deemed disgraceful for him not to keep pace with his fellows, and if he goes thence to professional schools he lives under the same pressure. It has been estimated that in our colleges at least one quarter of the youths are thus kept in advance of their natural powers, doing work for which they are unfitted by the measure of their growth. It is therefore contended that these peculiarities of development should be recognised and made the basis of some readjustment of educational methods. Moreover, the condemnation which is pronounced upon the youth under the prevailing system, wherever he fails through slow development to meet the demands put upon him, serves, as before remarked, to bar his subsequent intellectual growth. It seems not unlikely

that there is at present a tendency in our race to a slower rate of development than in earlier times. There is undoubtedly an increase of longevity and maintenance of vigour, the result of better hygienic conditions and of more skilful medical treatment.

One of the most illustrious instances of the slow unfolding of the mind is that of Montaigne. Whether belated development was a family tendency, or a peculiarity of his own, is not known. At any rate, Pierre Eyquem, Seigneur de Montaigne, the father of Michel de Montaigne (1532–1592), evinced no such characteristic. He was a brave soldier, a cultivated gentleman, and a man of unusual physical strength. "I have seen him," says his son, "at more than sixty years of age, throw himself on a horse, leap over the table with only his thumb on it, and never go to his room without springing up three or four steps at a time." This sprightly gentleman had many theories in regard to the education of Michel, who bore no physical resemblance to the father, of whom he thus speaks: "The good father God gave me sent me from my cradle to be brought up in a poor village of his, and there continued me all the while I was at nurse, and even longer, bringing me up to the meanest and most common way of living. This humour of his yet aimed at this end, — to make me familiar with these people and those conditions of men who most need our assistance." Further-

more, he adopted what has since become known as the natural method of education. Since nature is averse to sudden transitions, Michel was only permitted to be aroused by soft strains of music; and observing the misery caused by the usual methods of teaching, the Seigneur determined that the Latin language at least should be easily acquired. With this end in view he employed a German who spoke Latin but no French, and "this man," says Montaigne, "had me perpetually in his arms; it was the rule of the house that neither father, mother, maid, nor man servant should speak to me except in the Latin which they had learned for the purpose. As for me, at the age of six, I knew no more French than Arabic, and without study, book, grammar, or instruction, without rod and tears, I learned as much Latin as my schoolmaster could teach."

If better results were not obtained by his father's educational methods, Montaigne declares: "it was on account of the sterile soil with which he had to deal; for although my health was good and my disposition was docile, I was notwithstanding so heavy, dull, and sleepy, that I could not be aroused from my indolence even to play. I saw well what I saw, and beneath this dull outside I nourished a bold imagination and opinions beyond my age. My mind was slow, and never moved unless it was led, my understanding tardy, my invention idle, and amidst all an incredible want of memory." The defective

memory remained with him through life, but he found compensation for it, such as only a determined philosopher like himself would have been able to discover. He felicitated himself upon his ability to forget disagreeable things and to read an old book with all the interest of a new one. His indolence also continued, and, if we may judge of him by his somewhat contradictory accounts of himself, his greatest exertions were made with the view of avoiding unnecessary friction and mitigating a constitutional tendency to melancholy. Yet in one of his essays he says: "No man living is more free from this passion (sorrow) than I, — a quality always hurtful, always idle and vain, and so cowardly, mean, and base that it is by Stoics expressly and particularly forbidden." "The most certain sign of wisdom is a continual cheerfulness," he says. "'T is she that calms and appeases the storms and tempests of the soul and who teaches famines and fevers to laugh and sing."

In appearance Montaigne was short, strong, and thick-set. He prided himself upon the attractiveness of his countenance, which inspired men with confidence. In preference to the military profession he studied law. At this time of his life he journeyed frequently to Paris, and there won the favour of Henri III, by whom he was appointed a gentleman of the king's bed-chamber. He thus had large opportunities for acquiring the profound knowledge of

human nature which his "Essays" reveal. "I observe in my travels this custom," he says, "ever to learn something from the information of those with whom I converse (which is the best school of all others), and to put my company upon those subjects they are the best able to speak of."

In the year 1572 Montaigne began to write his famous "Essays." His custom was to walk about as he read and meditated, "for," he says, "my thoughts go to sleep when I sit down. . . . I never put pen to paper but when too great idleness becomes troublesome, and never anywhere but at home. . . . When I lately retired to my own house with the resolution to avoid as much as possible all manner of concern in affairs and to spend in privacy and repose the little remainder of time I have to live, I fancied I could not more oblige my mind than to suffer it at full leisure to entertain and divert itself." In this frame of mind, and with results for others such as he aimed at for himself, the "Essays" were begun. "Whoever takes me tripping in my ignorance," he says, "will not in any sort displease me . . . my design is to pass over easily and not laboriously the remainder of my life. There is nothing that I will break my brain about; no, not knowledge, of what price soever."

Notwithstanding the above disclaimer of knowledge, the "Essays" show a wide range of reading, and as for their merit, in other regards, Hazlitt says:

"He has left little for his successors to achieve in the way of just and original speculation on human life. Nearly all the thinking of the last two centuries which the French denominate *Morale observatrice* is to be found in Montaigne's 'Essays.' There is the germ at least, and generally much more."

It was not until his forty-fifth year that Montaigne's bodily infirmities came upon him. At that age a man, if ever, to say nothing of a philosopher by profession, has acquired the wisdom necessary to sustain adversity. The disease from which he suffered was stone in the bladder, mentioned by Pliny as one of the three maladies which justify a man in committing suicide. Although Montaigne's sufferings were acute, he fails to command the sympathy which is usually given to those burdened by bodily infirmities who are compelled to struggle under this load in early years, while the spirit is but imperfectly adjusted to the demands of life. We therefore refer to Montaigne not so much because he achieved great things under trying and difficult circumstances, but because he observed men closely and reflected with discriminating judgment upon the power of the spirit in controlling their actions. Indeed, he never seems to weary in emphasising the importance of the spiritual attitude which a man has it in his power to assume in relation to his surroundings.

A recent writer on Montaigne[1] says, "Till we think

[1] Early Writings of Montaigne, by Miss Grace Norton.

of Montaigne as an invalid we do not appreciate him highly enough." With the threat of death hanging over him, he braces himself to make the best of the life that is left him. He concludes that it is the part of wisdom "to receive cheerfully the good that it pleases God to send us. There is no other remedy or rule or science by which to avoid the evils, heavy and numerous, that attack us from every side and at every hour than to resolve to bear them manfully." Furthermore he says: "It is in our power, if not to annihilate pain, at least to lessen it by patience; and even though the body should be perturbed by it, to maintain nevertheless the soul and the reason in firmness."

While he recognised the dominion of the soul, Montaigne was too wise to draw hard and fast lines between the soul and body. He therefore writes not as an ascetic, but as one who loved life and brought to bear upon the art of living all the light that his own reason and the example of others could throw upon it. He believed with the Epicureans: "That a wise man should be as expert and intelligent in the use of pleasures as in all other duties of life. Xerxes was a fool, who, environed with all human delights, proposed a reward to him who could find him out others; but he is not much less so who cuts himself off from any of those pleasures which Nature has provided for him. A man should neither pursue nor fly, but receive them . . . that which makes us suffer

pain with so much impatience is the not being accustomed to repose our chiefest contentment in the soul; that we do not enough rely upon her who is the sole and sovereign mistress of our condition. The body, saving in greater or less proportion, has but one and the same bent and bias, whereas the soul is variable into all sorts and forms, and subjects to herself and her own empire all things whatsoever, both the senses of the body and all other accidents. And therefore it is that we ought to study her, to inquire into her, and to rouse up all her faculties. There is neither reason, form, nor prescription that can anything prevail against her inclination and choice." And again he says: "Every one is well or ill at ease according as he finds himself; not he who the world believes, but he who believes himself to be so is content, and therein alone belief gets itself being and reality. Fortune does us neither good nor hurt; she only presents us the matter and the seed which our souls, more powerful than she, turns and applies as she best pleases, being the sole cause and mistress of her own happy or unhappy condition. All external occasions receive taste and colour from the internal constitution, as clothes warm us not with their heat but our own."

Montaigne would have been the last to underrate the influence which the body likewise exerts over the soul. In speaking of the education of youth, he confesses that "it is not enough to fortify his soul;

you are also to make his sinews strong, for the soul will be oppressed, if not assisted with the body, and would have too hard a task to discharge two offices alone. I know very well how much mine groans, under the disadvantage of a body, so tender and delicate, that it eternally leans and presses upon her, and often in my reading perceive that our masters, in their writings, make examples pass for magnanimity and fortitude of mind, which really have more to do with toughness of skin and hardness of bone."

Although Montaigne had a great mistrust of physicians and physic, he had many theories concerning the preservation of health and the treatment of his own maladies. Recognising as he did the part which the imagination played to the detriment of the body, he called upon it to assist in its cure. It was his custom not to give in to sickness, however acute, and he boasts of having at one time sat in his saddle for ten hours while suffering torture. Indeed, he does not seem to have allowed his physical ailments to seriously interfere with the usual tenor of his life. He discovered that half the misery of invalidism is occasioned by the want of co-operation between the mind and body. A man can think while ill, though he may not be able, without applying great pressure, to act. This want of co-ordination between the reflective and active part of a man's nature is that which so often converts an invalid into a pessimist.

Montaigne was determined, so far as he was

concerned, that no inertia should interfere with his enjoyment of life or his chances of recovery; he therefore set out on a long and fatiguing journey, with the view of re-establishing his health by the use of the waters of the various mineral springs frequented in his day. If he was not cured of his malady, he was at least rewarded for his efforts in the pleasure he derived from the change of scene and the gratification of his fiery curiosity regarding places and people.[1]

Francis Egerton (1736–1803), Duke of Bridgewater, another instance of retarded development, was known as the first "great Manchester man," and the one who did more than any other to lay the foundations of the prosperity of that manufacturing centre.

Consumption was hereditary in the family, and it was not supposed that so delicate a child as he would survive. Moreover, he was so stupid that no one thought it worth while to concern themselves with his education; even his mother entirely neglected him, and allowed him to grow up as best he could. When he was seventeen years of age his guardian, finding him "still alive," decided to send him abroad with the celebrated traveller Robert Wood. In the course of their journey they passed through southern France, where the young duke

[1] See Complete Works of Michel de Montaigne, edited by William Hazlitt: Lives of Eminent Literary and Scientific Men of France, by Mrs. Mary Shelley.

saw the great canal of Languedoc. The impression which it made lay in his mind as the germ of future enterprise.

An unfortunate love adventure led the duke to shun society. In his isolation he became interested in practical affairs, and conceived the idea of carrying coal by means of a canal from Worsley to Manchester. At some seasons the roads about Manchester were so bad that it was as difficult to provide its population with food and fuel as to supply the necessities to a beleaguered town. While considering the difficulties of constructing a canal, Bridgewater consulted Brindley, who entered into the scheme, and uniting by water Manchester and Liverpool, showed as much skill in overcoming engineering difficulties as the duke did in his financial management.

These enterprises at that day were of colossal magnitude for private individuals to undertake, and involved the promoter in pecuniary embarrassments. His credit became so low that he even shirked paying his tithes; but the rector, as resolute as the duke, determined to waylay the debtor. The duke, seeing his pastor in the distance, entered upon a race, in which he was fairly outstripped and driven into a salt pit, from which he emerged lighter to the amount of his tithes.

The canal from Worsley to Manchester and thence to the Mersey was constructed at the cost of £220,000.

Eventually it paid an income of £80,000 a year, and enriched the proprietor as well as the public. The success of his bold enterprise rendered the duke one of the most useful men of his day. Among other praiseworthy acts, interesting himself in the welfare of his workmen, he built comfortable houses, and established shops and markets for their benefit.

Although not a man of cultivated tastes, the duke fancied pictures, and established the Bridgewater Gallery. He is said to have been a silent man; his activities had been on so large a scale there seemed but little occasion for energy of speech; on the other hand, he was an inordinate smoker. In spite of the habit, the slender youth on whom the bet had been laid that he would be blown off of his horse when riding the race in Trentingham Park, grew to be large and even corpulent. He lived to the age of sixty-seven.

The law of intellectual growth appears to exhibit the same departures from a mean that we find in physical development. It is a well-known fact to those who have concerned themselves with measuring human beings that there are as many men exceeding the ordinary stature of the race as there are men who fall below the normal size. In a word, that, given the average of a race and the number of persons of inferior size, it is easy to determine the number of those of abnormal height. It seems

likely also that the period of physical growth — the period in which the maximum altitude is attained — varies in different individuals; some youths attain their height early, others sometimes grow until they are twenty-six or twenty-eight years old. In fact, all the analogies which we may draw from other features of growth lead us to the conclusion that there will be as many persons who will develop their powers late in life as there are those who develop those powers prematurely. Precocious persons are generally recognised as valuable elements in the race. Their peculiar aptitude for learning or for original thought strikes those about them as something at once admirable and wonderful. Where, however, the child is so unhappy as to develop slowly, so far from awakening admiration, he is almost certain to be rated as a blockhead.

In judging the capacities of youths, it may safely be assumed that where the mind acts in a wholesome and vigorous manner, where there is a fair share of animal spirits and no debasing impulses, especially where the ancestry shows a tendency to slow development, we may bear patiently with the retarded process of growth for many years after the normal period. It appears not improbable that in certain lines of descent there is a tendency to irregularity in the period of development, and that this irregularity may manifest itself either in precocity or retardation of mental growth.

Robert Hall (1764–1831) furnishes an instance both of retarded development and of precocity. After the period of infancy the latter quality was the most conspicuous. His infantile development was so slow that he was unable to walk until he was two years of age, and he was so backward in learning to talk that it was thought he would never have the use of his tongue; but when the barrier was once removed the words flowed like a torrent, and as time advanced his clear and forcible vocabulary became one of the marvels of his day.

The great preacher, when a child, lived under the threat of premature death. The intense pain in his back, from which he suffered during his life, began when he was six years old; this, at least, may have been the result of indiscretion in his bringing up, for at so early an age he walked four miles each day to and from school. His pedestrian efforts finally led to a youthful exchange of commodities, his school-fellows, supplying the physical force, carried him upon their shoulders, while he repaid them for their trouble by telling interesting stories. Before going to school he had learned to read from the tombstones in a graveyard to which his nurse was in the habit of carrying him, and although his letters were acquired amid these gruesome surroundings, it is said they were learned without tears.

At the age of nine Robert had not only read Jonathan Edwards on the "Affections" and the

"Will," but Butler's "Analogy" also found a place among his books. Nourished upon literature of this kind, while yet a child he was able to write essays upon religious subjects, and to preach. He saw the folly of these premature efforts, and complained of friends, otherwise kind, who more than once committed the "egregious impropriety of setting a boy of eleven to preach to a company of brave gentlemen, full half of whom wore wigs."

Those who knew Hall at this time describe him as being pale and sickly in appearance. At the age of nineteen, however, Sir James Mackintosh says he had gained a comparatively healthy look, although at the time he suffered from "paroxysms of pain, during which he would roll on the floor in great agony, but when the pain subsided he would resume his part in the conversation with the utmost cheerfulness and vivacity."

At King's College, Aberdeen, Hall became the first scholar of his class, and at the age of twenty his preaching attracted the ablest men of the neighbourhood. His first address was a signal failure, and his second effort even worse. The mortification this fiasco caused him he regarded as a salutary discipline and of great spiritual benefit.

Professor Sedgwick of Cambridge, in his biography of Hall, speaks of an asthmatic difficulty of utterance which was always very manifest at the beginning of a prayer or sermon. "But as Mr.

Hall proceeded," he says, "the breathing of his sentences became more easy, and before long there was a moral grandeur in his delivery which triumphed over all organic defect or physical weakness. . . . In occasional flights of the imagination, in discussions of metaphysical subtlety, we were for a while amazed and almost in fear for the preacher. And then he would come down with an eagle's swoop upon the matter he had in hand and enforce it with a power of eloquence such as I never felt or witnessed in the speaking of any other man."

Hall's nature was genial and cheerful; it is said "he moved in an atmosphere of hilarity," except when the pain in his back affected his spirits; then any latent querulousness would find its outlet in a complaint of the monotony of Cambridgeshire scenery, — a complaint often heard from others less grievously afflicted than Hall. He retired to Shelford, a few miles from Cambridge, where, cut off from the society of a charming circle of friends, he gave himself up too exclusively to study, and in consequence his splendid mind became unbalanced. A few months of entire rest restored him to mental and physical health, but within a year he suffered from a similar attack, and died at the age of sixty-two, lamented by all who knew him. His last illness was partly ascribed to the latent malady of his childhood.

CHAPTER IX

ACCIDENTAL MALFORMATIONS

AT the end of the late Civil War in the United States some hundred thousand persons, mostly in early manhood, were crippled by the loss of limbs or by wounds equally prejudicial to their welfare. The accidents which deprive a man of his legs appear to have on the whole a less deleterious influence on the general condition of the body than the loss of the arms; and yet very many officers have attained great activity even after the more severe loss. General Kearney, one of the most effective cavalry commanders of our Civil War, was a one-armed man, and, in many a charge, rode with the reins of his horse in his teeth and his sword in his remaining hand.

Major John W. Powell (1834–1902), whose right arm was shot off during the Civil War, undertook and brought to a successful issue one of the most daring feats of modern times. While making his explorations of the cañons of the Colorado River he was called upon to face great dangers and toils, and in those gloomy depths where, he tells us, clouds

often hid the sky by day and but a narrow zone of stars could be seen at night, he groped his way from one great uncertainty to another.

The cañons, obstructive cliffs, and desert wastes through which the Colorado runs, practically remained unknown until 1869, when a small party under the direction of Major Powell, in boats especially constructed for the purpose, descended the Green River into the Colorado, down to the foot of the Grand Cañon, the whole distance about two thousand miles. In some places the walls of the cañon are more than two thousand feet high and are vertical from the water's edge. Through the passage which it has carved for itself the river finds its way over rapids and down precipitous falls. Those of ten or twelve feet were easily run; but when the stream plunged down forty or fifty feet in a channel filled with huge boulders, ledges, and pinnacles of rock, and where the waves broke into whirlpools, it was often the fate of the boats to careen and have their open compartments filled with water, or, as sometimes happened, to be dashed to pieces, the men and fragments washed about in a whirlpool until the men at least were rescued.

The dangers encountered can best be learned by a few extracts from Major Powell's own account of his explorations. Having started on the journey with supplies to last ten months, the explorer writes: —

JUNE 7.

"To-day two or three of us climbed to the summit of the cliff and find its altitude to be 2,086 feet. . . . We walk out to the brink of the cañon and look down to the water below. I can do this now, but it has taken several years of mountain climbing to cool my nerves so that I can sit with my feet on the edge and look calmly down a precipice two thousand feet."

"JULY 19.

" . . . Climbing for an hour over and among the rocks we find ourselves in a vast amphitheatre and our way cut off. . . . We try the rocks around to the right and discover a narrow shelf, nearly a mile long. In some places it is so narrow and sloping that we are compelled to lie down and crawl. We can look over the edge of the shelf, down eight hundred feet, and see the river rolling and plunging among the rocks. Looking up five hundred feet, to the brink of the cliff, it seems to blend with the sky. Up we climb. Cut off by a great crevice we find no place where the rocks are broken down so that we can climb up. At last we select a crevice which we think is wide enough to admit of the passage of our bodies, and yet narrow enough to climb out by pressing our hands and feet against the walls. So we climb as men would out of a well."

"JULY 22.

" . . . This fissure is narrow, and I try to climb up to the bench, which is about forty feet overhead. I have a barometer on my back, which rather impedes my climbing. The walls of the fissure are of smooth limestone, offering neither foot or hand-hold, — so I support myself by pressing my back against one wall and my knees against the other, and in this way lift my body, in a shuffling manner a few feet at

a time, until I have, perhaps, made twenty-five feet of the distance, when the crevice widens a little, and I cannot press my knees against the rocks in front with sufficient power to give me support in lifting my body, and I try to go back. This I cannot do without falling. So I struggle along sidewise, farther into the crevice, where it narrows. But by this time my muscles are exhausted, and I cannot climb longer; so I move still a little farther into the crevice, where it is so narrow and wedging that I can lie in it, and there I rest. Five or ten minutes of this relief and up once more I go, and reach the bench above; on this I can walk for a quarter of a mile till I come to a place where the wall is again broken down, so that I can climb up still farther, and in an hour I reach the summit. I hang up my barometer to give it a few minutes' time to settle, and occupy myself collecting resin from the peñon pine. . . . One of the principal objects in making this climb was to get this resin for the purpose of smearing our boats. In my eagerness to reach a point where I can see the roaring fall below, I go too far on the wall, and can neither advance nor retreat. I stand with one foot on a little projecting rock and cling with my hand fixed in a crevice. Finding I am caught here, suspended four hundred feet above the river, into which I should fall if my footing fails, I call for help."

"JULY 24.

"We are compelled to make three portages in succession, the distance being less than three fourths of a mile, with a fall seventy feet. Among these rocks, in chutes, whirlpools, and great waves, with rushing breakers and foam, the water finds its way. . . . I come to a beautiful fall, of more than a hundred and fifty feet, and climb around it on broken rocks. Looking about, we find a place where it seems possible to ascend the cliff. I go ahead; Bradley hands the barometer

to me, and follows. So we proceed stage by stage until we are nearly at the summit. Here, by making a spring, I gain a foothold in a little crevice, and grasp an angle of the rock overhead. I find I can get up no farther and cannot step back, for I dare not let go with my hand, and cannot reach foothold below without. I call to Bradley for help . . . he cannot reach me. Then he looks around for some stick or limb of a tree, but finds none. He suggests helping me with the barometer case; but I fear I cannot hold on to it (with one hand). The moment is critical. Standing on my toes, my muscles begin to tremble. It is eighty feet to the foot of the precipice. If I lose my hold I shall fall to the bottom, and then perhaps roll over the bench and tumble still farther down the cliff. At this instant it occurs to Bradley to take off his trousers, which he does, and swings them down to me. I hug close to the rock, let go with my hand, seize the dangling legs, and, with his assistance, I am enabled to gain the top." [1]

On August 29 the party emerged from the Grand Cañon of the Colorado. "The relief from danger and the joy of success," says the major, "is a rich recompense for the pain, gloom, and terror of the past months spent in the depths of cañons. . . . Only during the few hours of deep sleep, consequent on hard labour, has the run of the waters been hushed. Now danger is over, now the toil has ceased, now the gloom has disappeared. . . . The river rolls by us in silent majesty; the quiet of the camp is sweet; our joy is almost ecstasy."

[1] From "Exploration of the Colorado River of the West and its Tributaries," by John Wesley Powell.

The crippled not infrequently find a peculiar satisfaction arising from endeavour. What they manage to win from life is their own in a measure, not always given to the unhampered. Here, as everywhere else, in the moral conflict with misfortune the training of the patience and the will brings some compensation for the physical loss, and in the end the sufferer may be more fortunate than if he had been spared the ill. Soldiers in command, explorers, sea-faring men, and others under circumstances which forbid repose, often find that maladies which to most people would bring entire prostration can be so subjugated by the will that for weeks or months they are able to do difficult and exacting work. If we could take full account of the battles which have been won, the sieges which have been maintained, the explorations which have been carried to their appointed end, the great deeds performed by men suffering from grave disease, the list would be surprising.

Working under strain, Francis Parkman (1823–1893) won a satisfaction peculiarly dear to his heroic spirit; and though it might have been wiser in some respects to have been more merciful to himself, he was doubtless minded of the fact that excessive submission to illness, though it may favour the life of the body, risks the death of the spirit; and that it is better to take the soldier's part rather than seek to secure life at the price of the work which en-

nobles it. "Blows are good for most men, and suffering to the farthest limits of their endurance" was the belief not only professed but practised by this masterful man. Indeed he was a gallant invalid; heroic in the attack upon his enemies, as he called his maladies, as also in his resistance to them. Although he took for his motto "Grin and bear it," he abominated the spirit of resignation, and was always eager to rise up in arms against his adversaries. He had faith in free will and the power of men to shape events, putting his precepts into practice by reforming his own character, and dominating, as far as was humanly possible, the bitter elements in his life. Before the end, however, he came to see that the militant way is not invariably the successful way, and in his battle brought up the reserves of patience and sweetness which, added to his other forces, enabled him to win the victory.

Francis Parkman's childhood was neither healthful nor buoyant, and though for a time active, he was not robust. At eight years of age he was sent to rusticate at a farm belonging to his grandfather, in a wild, wooded region. Here, out of school hours, he spent a good part of his time, learning to know and to love nature. At sixteen he again became a frequenter of the woods, and while under the spell of field and forest, conceived the idea of writing a history of the French and Indian wars. Henceforth the wilderness and all outdoor experiences, as well

as his studies, were made to serve his literary purpose. He walked like the Indians, and in moments of exuberant feeling whooped like them. His dream was to experience the hardships and adventures known to savages on the war-path, to discoverers, and to all active and daring men. He became a bold and dashing rider, and later in life his courage, his capacity for great deeds, his gallant courtesy, and fidelity in friendship, reminded his friends of a knight of the Round Table.

By the emphasis Parkman put upon his favourite studies while at college he may be said to have educated himself. He somewhere says that "the man who knows himself, understands his own powers and aptitudes, forms purposes in accord with them, and pursues these purposes steadily, is the man of success."

The beginning of Parkman's invalidism is somewhat obscure. It is supposed, however, that the trials of strength and endurance to which he subjected himself overtaxed a constitution not naturally robust, and also that in his senior year at college some trouble of the heart, resulting from a strain in the gymnasium, was the immediate cause of his giving up his studies and going to Europe. The lamentable thing about his bodily sufferings is the conviction that they were in a measure due to ignorance as much as to hereditary weakness. He himself said that with wiser management his diseases might have been cured and outgrown.

The Oregon Trail trip was taken for the double purpose of learning close at hand the ways of savages, and of curing his eyes, which he had injured by over use while at the Law School; instead, however, of proving restorative, the journey was the immediate cause of some of his worst troubles. Under the stress of a complication of disorders, Parkman resorted to starvation. Owing to this regimen, often while in company with a band of wild Indians, he reeled in his saddle with weakness and pain. Indigestion soon deprived him of sleep, and this was the beginning of the insomnia that tormented him during the remainder of his life. He sometimes expressed wonder at not going insane from persistent sleeplessness.

Although the Oregon Trail trip cost Parkman his health, he so greatly valued the experience and so little pitied the weakness of the flesh that he never regretted the heavy price he paid for it. His hope had always been to associate literature with adventure, and in his book entitled "The Oregon Trail," he exhibits not only literary power, but the moral qualities which he so much admired.

With the decline of health the weakness of his eyesight increased. Then rheumatic gout set in, — with effusion in one of his knees, — and finally the exhaustion of mind and body helped to develop an inherited tendency to disorders of the brain, supposed to arise from an abnormal state of certain

arteries of that organ. Henceforth Parkman was never free from ill health in one form or another, and yet when the doctors told him to desist from mental labour he began another piece of work. His action arose from no mere wilfulness, but from the conviction that nothing could be worse for body and mind than the absence of a definite purpose, and also that insanity often begins in moods and mental conditions that at the beginning can be avoided.

Speaking of Parkman's perseverance, John Fiske says: "The heroism shown year after year in contending with physical ailments was the index of a character fit to be mated for its pertinacious courage with the heroes that live in his shining pages." Referring to his labours as related to his health, Parkman himself says: "Under the most favourable conditions it was a slow and doubtful navigation, beset with reefs and breakers, demanding a constant lookout and a constant throwing of the line." But notwithstanding his doubts, he learned by husbanding his forces and by regulating his way of life that it was possible to produce works of unsurpassed value.

While at Paris, since literary work was at the moment suicidal, Parkman spent most of his time on the tops of omnibuses. He writes: "I am a little less lame. I get on well enough. The omnibuses of Paris are made with railings in such a way that with a little science I can swing myself to the top

with my arms alone." From this altitude he watched the endless stream of life that swept through the streets. It mattered not to what class people belonged; omnibus drivers, soldiers, priests, scholars, farmers, old and young, all alike interested him, and of all he was a tolerant critic save in regard to unmanliness and meanness.

Returning from Europe a confirmed invalid, Parkman met the conditions with the skill of a master hand in parrying the blows of fortune, and although in no sense a Puritan, he undoubtedly became a Stoic. Indeed, he gives the impression of one who might have rejoiced not only in mortifying the flesh, but in putting himself to the test of thumbscrew or boot. He was, in fact, a man who converted all disasters of life into touchstones of manly endurance, and who realised the grandeur of being always master of one's self.

When denied literary labour, Parkman devoted himself to gardening, doing much of the lighter work himself. The cultivation of roses and the hybridisation of lilies (he contributed to horticulture the magnificent Lilium Parkmanni) were at this time his chief concern. Sitting in his wheeled chair, he could use a rake or hoe; he also would sometimes split wood and do carpenters' work. Fortunately his arms remained serviceable until near the close of his life. When rheumatism finally reached his shoulder and ended his outdoor occupations, upon

which he was dependent for what health he had, he practised deep breathings and such movements as could be made in a chair.

When able to resume his literary work, the sensitiveness of Parkman's eyes made it impossible to look at paper while writing; he therefore had made a contrivance which he called his gridiron. It consisted of a wooden frame the size of a sheet of letter paper, with stout wires half an inch apart, fixed horizontaly across it. Guided by these wires, he could write not illegibly with closed eyes. Later he could read on the average five minutes at one time. At other periods, by alternately reading and resting for one minute, he was able to continue for about half an hour, and during the course of the day could repeat the process three or four times. It is not surprising that Parkman should sometimes have thought that the world was given over to the devil. His persistency of will was in no way more clearly shown than in the submission to the scholarly demands of his task. The one compensation for his tedious mode of acquisition was that it forced him to consider well his plan, to thoroughly assimilate his material, and live on terms of intimacy with his characters. In the long hours of enforced solitude and idleness, and during the sleepless hours of the night, he reflected upon the facts he had collected, and upon the natures of the men whose deeds he recorded in his glowing pages.

It was the combination of his misfortunes and gifts — his fidelity to his ideals, his invincible courage, and, above all, the remodelling of his character to his conditions — that made Parkman one of the strongest personalities in literary history. In his youth he once wrote: "The true philosophy of life is to seize with a ready and strong hand all the good in it, and brave its inevitable evils as calmly and carelessly as possible." This he did, only instead of braving evils carelessly, he braved them nobly.

Like most wise invalids, Parkman resorted to many self-protecting devices. During acute attacks of suffering, whenever it was possible to do so, he turned his thoughts to light and jocose subjects. As a relief from serious thought he would tell at the breakfast table or elsewhere stories remarkable for their amusing exaggeration. In order to vary the monotony of his daily row on so small a sheet of water as Jamaica Pond, he imaginatively extended its boundaries. One part he called the Cape of Good Hope, another Behring Sea, peopling each region with the animals appropriate to it. In the depths of the pond he kept a terrible ichthyosaurus and a monstrous sea serpent.

Parkman was often seen in the streets of Boston walking rapidly (he used crutches) for a short distance, then stopping and supporting himself against the wall of a house to give a moment's rest to his knee. The close of his life was happy; he was

honoured and respected; his friends were numerous and his reputation great.[1]

Men of naturally strong constitutions, with whom the need of going on one leg or of fighting the battle of life single-handed is an accident grafted on native vigour, are but lay brothers in suffering compared, so to speak, with the professional invalid, — the one who starts with a frail body and to this affliction other disabilities have been added. Among such is Horatio Nelson; and yet, despite his physical infirmities, Horatio Nelson (1758–1805) ranks as one of the most daring and active of men. In the "Agamemnon," the "Vanguard," and the "Victory," exposed to all the hardships of a sea-faring life, he traversed the waters of the earth, and during his comparatively short life took part in more than a hundred engagements, winning three of the greatest naval victories recorded in history. To the burden imposed by a frail body was added the loss of his right eye and his right arm, and other wounds gained in the service of his country.

His uncle, Captain Suckling, of the navy, in answer to the application that Horatio might be allowed to join him at sea, wrote: "What has poor Horatio done, who is so weak, that he, above all the rest, should be sent to rough it out at sea? But let him

[1] The material for this sketch is taken from the Life of Francis Parkman, by Charles Haight Farnham.

come, and the first time we go into action a cannon-ball will knock off his head and provide for him at once." Poor little Horatio set out alone to find his way on board the "Raisonable." When finally he reached the ship Captain Suckling was not on board, and it was not until the second day that somebody, as he expressed it, "took compassion on him."

Nelson's third voyage was to the East Indies, where ill health soon seized upon him. His only hope of recovery was to return home. Many years afterwards he spoke of his state of mind at this time. "My mind was staggered," he said, "with the view of the difficulties I had to surmount in my profession. . . . After a long and gloomy revery, in which I almost wished myself overboard, a sudden glow of patriotism was kindled within me, and presented my king and country as patron. 'Well, then,' I exclaimed, 'I will be a hero, and confiding in Providence, I will brave every danger.' From that time a radiant orb was suspended in my mind's eye, which urged me onward to renown." Nelson always believed "that the sunshine which succeeded the period of gloom bore with it a prophetic vision, and that the light which led him on was light from Heaven."

Nelson next served in the West Indies and in South America, until he became so ill that he was obliged to return once more to England. When he sailed again, although suffering from the effects of a tropical climate, he was ordered to the North Sea. This

command he considered not only cruel to him individually, but detrimental to the service. As it turned out, however, the voyage from a naval point of view was advantageous, for it enabled him to acquire knowledge which afterwards contributed largely to his successes in the Baltic.

When Nelson joined the English fleet at the West Indies the Duke of Clarence, to whom Lord Howe introduced him, thus described him: "He seemed like the merest boy of a captain, dressed in full naval uniform, — an old-fashioned waistcoat with long flaps, and his long unpowdered hair tied in a stiff Hessian tail of extraordinary length, making altogether so remarkable a figure that I had never seen anything like it before, nor could I imagine who he was or what he came about; but his address and conversation were irresistibly pleasing, and when he spoke on professional subjects it was with an enthusiasm which showed he was no common being."

It was while in the West Indies that Nelson married Mrs. Nisbet, an eighteen-year-old widow, and the mother of one child, Josiah, with whom the captain first made friends. Mrs. Nisbet's uncle, Mr. Herbert, having upon one occasion made haste to receive Nelson, exclaimed after the interview: "Good God! If I did not find that great little man, of whom everybody is so afraid, playing in the next room under the dining-table with Mrs. Nisbet's child!"

Before entering upon the really important period

of his life, the future hero passed a few months of quiet with his old father at his parsonage. Here he took part in country amusements, and it is recorded that he once shot a partridge. The act was considered noteworthy, as he always carried his gun upon the full cock, as if he were going to board an enemy, and the moment the bird rose he let fly without even putting the fowling-piece to his shoulder.

Having joined the Mediterranean fleet under Lord Howe, after the capitulation of Bastia, Nelson exclaimed: "I am all astonishment when I reflect on what we have achieved. I always was of the opinion, have ever acted up to it, and never had any reason to repent it, that one Englishman is equal to three Frenchmen." At the siege of Calvi the climate proved to be unwholesome to Nelson and the work laborious. "We 'll fight ourselves to death," he said to Lord Howe, "before any blame shall lie at our door." At this siege a shot, happening to strike the ground near him, drove some sand and gravel into his eyes. The accident seemed slight at first, but in reality it involved the loss of the sight of one eye. After the fall of Calvi, Nelson's name not even appearing among the wounded, he indignantly wrote: "One hundred and ten days I have actually been engaged upon sea and on shore against the enemy, — three actions against ships; two against Bastia in my ship; four boat actions, and two villages taken, and twelve sail of vessels burnt. I do not know that

any one has done more. I have had the comfort of being always applauded by my commander-in-chief, but never to be rewarded, and for services in which I have been wounded others have been praised, who at the time were actually in bed far from the scene of action; but, never mind, I will have a gazette of my own." Already Nelson was a physical wreck, and felt that his days of activity were numbered. He compared himself to his ship, "the poor Agamemnon," which, he said, "was as nearly worn out as her Captain, and both must soon be laid up for repairs." Among his other infirmities, he had become almost blind.

Off Cape St. Vincent, with the aid of Trowbridge, Nelson engaged six of the enemy's ships, boarding one vessel from the deck of another. It was when he gave orders to board the "San Josef" from the "San Nicholas" that he exclaimed, as he led the way, "Westminster Abbey or Victory!"

At the desperate assault of Santa Cruz Nelson was shot through the right elbow. His step-son Nisbet, by his prompt action in tying a silk handkerchief over the wound, saved him from bleeding to death. When his boat reached the "Sea Horse," in his haste to send it back to rescue the crew of the "Fox," which went down, Nelson refused all aid. He desired to have only a single rope thrown over the side; this he twisted round his left hand, saying: "Let me alone; I have yet my legs left and one arm.

Tell the surgeon to make haste and get his instruments. I know I must lose my right arm, so the sooner it is off the better." After this misfortune, in a private letter to Lord St. Vincent he wrote: "I am become a burden to my friends and a nuisance to my country." And in a subsequent letter: "A left-handed Admiral will never be considered as useful; therefore the sooner I get to a very humble cottage the better, and make room for a sounder man to serve the state."

Unsuccessful in his search for the French fleet, which had sailed from Toulon, Nelson went back to Sicily, where, owing to Lady Hamilton's influence at the Neapolitan court, he was furnished with supplies, without which, he claimed, it would have been impossible to recommence the pursuit of the French. Returning to Egypt, at Alexandria, he perceived with exultation that the tricoloured flag was there. In the thick of the engagement that followed Nelson received a severe wound, which at the moment seemed likely to prove fatal. He was struck on the head by a piece of langridge shot, and a large flap of the skin of the forehead fell over one eye. When carried to the cockpit the surgeon hastened to attend the admiral. He refused immediate assistance. "I will take my turn," he said, "with my brave fellows." When the wound was pronounced to be superficial, the delight of the crew knew no bounds. The surgeon ordered Nelson to keep quiet, but the

cry that the "Orient" was on fire brought him unaided to the quarter-deck, where he immediately gave orders that boats should be sent to the rescue of the enemy. As the result of the battle of the Nile the power of France was shaken to its foundation. After this desperate engagement, although suffering incessant pain in his head, accompanied by sickness, Nelson at once set about refitting his squadron.

Now at the summit of his glory, he received congratulations, honours, presents, titles, and adulation from the various powers which his victories had relieved of anxiety concerning Bonaparte. By his own king he was created baron of the Nile and of Burnham-Thorpe. When it was suggested that a higher title should be conferred upon him, Pitt said: "Admiral Nelson's fame would be coeval with the British name, and it would be remembered that he had obtained the greatest naval victory on record, when no man would think of asking whether he had been created a Baron, a Viscount, or an Earl."

Nelson had now been without repose of mind or body for nearly five years. The loss of a limb had given him a few months of intermission of labour, but he had suffered continually during the whole period. "My complaint," he said, "is as if a girth were buckled taut over my breast and my endeavour in the night is to get it loose." On his way back to Italy he was seized with a fever, and for a time his life was despaired of. He was so reduced by

this illness that he entertained little hope of recovery. He wrote to Earl St. Vincent: "I never expect, my dear Lord, to see your face again. It may please God that this will be the finish to that fever of anxiety which I have endured from the middle of June."

His next great task was the crushing of the naval power of Russia, Sweden, and Denmark. Speaking of the political importance of the Sound, the only frequented entrance to the Baltic, Southey says: "At a distance of twenty miles from Elsinore stands Copenhagen, one of the finest capitals of Europe. Elsinore is a name familiar to English ears, being inseparably associated with 'Hamlet,' and one of the noblest works of human genius. . . . Never had so splendid or busy a scene been exhibited as on this day when the British prepared to force that passage, where till now all ships trailed their topsails to the flag of Denmark."

Nelson superintended in person the sounding of the dangerous channel, working day and night on this fatiguing service. "Such duty," he said, "was infinitely more grievous to me than any resistance which I could receive from the enemy." On the eve of the battle he was so exhausted from incessant work that he lay upon his cot while dictating orders. The hesitation of the pilots gave cause for alarm. Already the signal for action had been given; the wind was fair, and not an instant to be lost. Nelson always spoke of this as the most painful moment of

his life. When the combat was fairly under way his agitation entirely disappeared, his conversation "became joyous, animated, and delightful." Owing to the difficulties of the passage, a fourth part of his ships failed to get into position. The commander-in-chief, seeing the accident which weakened Nelson's force, gave the signal of recall. At the time, in all the excitement of action, pacing the quarter-deck, Nelson said to one of his officers: "It is warm work, and this day may be the last to any of us, at any moment"; and then, stopping short of the gangway, added with emotion, "but, mark you, I would not be elsewhere for thousands." When the signal for discontinuing the fight was again thrown out by the commander-in-chief, still pacing the deck and moving the stump of his lost arm, which always indicated great emotion, Nelson exclaimed: "Leave off action, — no, damn me if I do! You know, Foley," turning to the captain, "I have only one eye. I have a right to be blind sometimes," and then putting his glass to his blind eye, he said: "I really do not see the signal. Damn the signal! keep mine for closer battle flying. That is the way I answer such signals."

When war again broke out Nelson took his station at Toulon. During the fourteen months he watched for the French fleet, he left his ship but three times, and then on government duty. So far as his health was concerned, he only expected to last

until the battle was over. He speaks of his "shattered carcass," and says: "I have felt the blood gushing up the left side of my head, and the moment it covers the brain I am fast asleep." News at length came that the combined fleet had entered the harbour of Cadiz. On Friday night, September 13, Nelson wrote in his journal: "I drove from dear Norton, where I left all which I hold dear in the world to go and serve my king and country."

On the day of the battle of Trafalgar Nelson, as usual, wore his admiral's dress, and on his left breast the four stars of the different orders he had received. His officers tried to dissuade him from wearing these conspicuous decorations. To all such remonstrances he answered: "In honour I gained them; in honour I will die with them." During the engagement Nelson twice gave orders to cease firing on the "Redoubtable," supposing she had struck because her guns were silent. It was from this ship which he had so generously spared that the shot came which ended his life. In the heat of action he was struck in the shoulder. As he fell he said to his old friend Hardy: "They have done for me at last! My backbone is shot through." He covered his face and his stars, that he might not be recognised by the crew, and when taken to the cockpit, insisted that the surgeon should leave him, since his case was hopeless, and attend to those whose chances of recovery were better. He was indeed a dead man.

"His death," says Southey, "was felt in England as something more than a public calamity. Men started with the intelligence, and turned pale, as if they had heard of the loss of a dear friend. . . . It seemed as if we had never known until then how deeply we loved and reverenced him. So perfectly had Nelson," the many times wounded and crippled man, "performed his part, that the maritime war after the battle of Trafalgar was considered at an end. The fleets of the enemy were not only defeated, but destroyed; new navies must be built and a new race of seamen reared for them before the possibility of their invading our shores again could be contemplated. The victory of Trafalgar was the most signal victory ever achieved upon the seas." [1]

[1] See Life of Nelson, by Robert Southey.

CHAPTER X

UNCLASSIFIED MALADIES

ALTHOUGH many troubles of the human body cannot be reduced to classification, their victims are none the less unhappy, — indeed they may be described as "generally miserable"; and the fact that the cause of suffering eludes identification gives an opportunity for the imagination to swell, from its crowded realm of tortures, the list of possible diseases. And yet such indispositions, from whatever source they may arise, are consistent not only with a long life but with a high measure of intellectual and bodily activity. Under these conditions men who have seldom been free from pain or from the discouragements which illness brings in its train have done the work of great soldiers, statesmen, explorers, and authors. In many cases the disease which sought to be the invalid's master has in a way become his servant. It has at least supplied an incentive to resolve such as is often wanting in the healthy.

George Eliot's life was one both of fear and accomplishment. There is no definite clue as to how far

she deliberately set to work to master the inertia of a frail body. It is, however, sufficient for our purpose to know that she did work persistently under the stress of great physical discouragement. Her journal and letters abound with allusions to headache, pains, and low spirits. At times her soul grew weary under the pressure of infirmities which required the fortitude of a high nature to endure and the vigour of a strong intellect to dominate.

In connection with her early school days there was one thing which Mary Ann Evans (1819–1880) particularly remembered, and that was the difficulty in getting near enough to the fire, owing to a circle of girls forming around a narrow fireplace, ever to become thoroughly warm. To this circumstance she attributed the beginning of a low general state of health. At that time she also began to be subject to fears at night. "When night came," she said, "I was liable to have all my soul become a quivering fear, which remained with me and became one of the supremely important influences dominating at times my future life."

Mary Ann Evans was far from good-looking. She was remarkable, however, for the sweetness of her voice and the exquisite finish of her speech. After that of Napoleon, her head showed the largest development from brow to ear of any recorded measurement.

At the age of fifteen, losing her mother, Marian

(as she was now called) henceforth combined the duties of domestic life with the studies she was determined to pursue. In proof of the amount of butter and cheese she had handled, she once, with evident pride, called the attention of a friend to the fact that one of her hands was much broader than the other. Latin, Greek, French, and German were her principal studies, likewise music, which continued through life a source of enjoyment; indeed, one of the very few occasions when she speaks of having good health is in connection with the muscular exertion of practising on a new grand piano.

Miss Evans' preparation for the task of translating Dr. Strauss' "Leben Jesu" marks the introduction of a new element in the literary work of the modern woman, — a ripe and broad scholarship. The translation of this profound work taxed her patience to an almost intolerable degree. She complained that she was 'Strauss sick.' Her friend Mrs. Bray writes: "Poor thing; I do pity her sometimes, with her pale sickly face and dreadful headaches, and her anxiety about her father." It took her three years to complete the task, and at the end she only received £20 in payment for what is acknowledged to be a masterpiece of clear English and faithful rendering. It proved, however, to be an excellent introduction to the world of letters.

After the death of her father Miss Evans' inconsolable state induced her friends the Brays to take

her to the continent. At all times delicate and given to shedding "bucketsful of tears," she now became still more nervous, her terror in crossing the Alps destroying almost all the pleasure she might otherwise have had. In a letter written some years afterward to Mrs. Bray, the novelist alludes to the morbid state in which she was at that time, and thanks her friend for her forbearance during those days of bodily and mental pain. In her journal and letters, even in her youth, such expressions as the following are frequent: "My excuse [for not writing] shall be a state of head that calls for four leeches before I can attack Mrs. Somerville's 'Connection of the Physical Sciences.' I have woeful headaches, which take up half my nervous strength. My life is a perpetual nightmare, and always haunted by something to be done, which I never have the time, or rather the energy, to do. . . . I will promise to be as Christmas-like as my rickety body and chameleon-like spirits will allow. Spinoza [she was translating his "De Deo"] and I have been divorced for several months. My want of health has obliged me to renounce all application. I take walks, play on the piano, read Voltaire, talk to my friends, and just take a dose of mathematics every day to prevent my brain from becoming quite soft."

Again she writes, "All creatures about to moult or to cast off an old skin or enter on any new metamorphosis, have sickly feelings. It was so with me.

But now I am set free from the irritating, worn-out integument. I am entering on a new period of my life, which makes me look back on the past as something incredibly poor and contemptible." The last quotation gives promise of better health and spirits, but alas, the exemption from sickness and despondency was, in 1848, as at all times, of short duration. Nevertheless, sad and tormented as she was by doubts and longing, such was her flexibility and sensitiveness to the personality of another, that Mr. Emerson, after a long talk with her about this time, was observed to give a sudden start at something the Quaker-like young woman had said, and afterwards spoke of her "great calm soul," little thinking that what he had discerned was a subtle reflection of his own serenity.

Having chosen London for her home, Miss Evans took up her connection with the "Westminster Review," the leading exponent of the most advanced scientific thought of the day. Among its contributors were Herbert Spencer, G. H. Lewes, James and Harriet Martineau, and other eminent writers. In simple, vigorous language, her own contributions treated of art, philosophy, and social institutions. In her review of Heinrich Heine, complaining of the general heaviness of German writers, she says: "A German comedy is like a German sentence: you see no reason in its structure why it should ever come to an end, and you accept the conclusion as an arrangement of Providence, rather than of the author."

Alluding to city life she writes: "This is all very fine, but in the meantime I am getting as haggard as an old witch, under the influence of London atmosphere and influences." Again: "I am bothered to death with article reading and scrap work: it is clear my poor head will never produce anything under these circumstances, — but I am patient. . . . I am in a miserable state of languor and low spirits, in which everything is a trouble to me." After a visit to the country she says in one of her letters: "I celebrate my return to London by the usual observance, — that is to say, a violent headache, which is not yet gone, and of course I am in the worst spirits and my opinion of things not worth a straw."

In spite of headaches and constant work, her life at this time was not without its agreeable episodes. Her friendship with Herbert Spencer was a source of intellectual and social pleasure, but the formative influence which it is claimed he exercised over her mind is denied by him. "Our friendship," he writes, "did not commence until 1851 . . . when she was already distinguished by that breadth of culture and universality of power which have since made her known to all the world." The acquaintance with Mr. G. H. Lewes was the one of all others which had the greatest influence over Miss Evans' future life. Mr. Lewes was a contributor to the "Westminster Review." This, however, is an inadequate statement of his multifarious occupations and inex-

haustible powers. Thackeray once said that it would not surprise him to meet Lewes in Piccadilly riding on a white elephant. He was the first to suggest to Miss Evans the novel as a possible form of expression, and to this suggestion is due the creation of characters which have become a part of the world's spiritual wealth.

In George Eliot's diary are to be found the following entries: "The third volume of Adam Bede was written in six weeks, even with headaching interruptions, because it was written under stress of emotion which first volumes cannot be." Again: "Since I wrote to you last I have lived through a great deal of exquisite pleasure. First an attack of illness during our last week at Munich, which I reckon among my pleasures, because I was nursed so tenderly. . . . The last words of Adam Bede are written. After receiving the manuscript, Blackwood wrote back in warm admiration and offered me on the part of the firm £800 for four years' copyright. I accepted this offer. . . . I have written this slight history of my book because I love it very much, and am deeply thankful to have written it, whatever the public may say of it — a result which is still in darkness." She adds: "March 16, 1859. Blackwood writes to say I am a popular author as well as a great author. . . . The news comes rather strangely to me, who live in such unconsciousness of what is going on in the world."

The "Mill on the Floss" and "Silas Marner," the one the most poetical and the other George Eliot's most finished production, together with "Adam Bede," were written in three successive years, and are evidence of the richness of the author's mental resources, as well as of the energy of a mind capable of such exertion under great physical depression.

The failure on the part of George Eliot's women to realise their aspirations in the form which they first assumed has been attributed to her own experience of life; but failure in the ordinary sense of the word was not her lot. She was honoured and beloved in her home, and the tributes of an admiring world were lavished upon her without stint. The great drawback to her happiness was the want of health, which throughout life rested like a cloud upon her spirits and activities. Although no one resented more warmly than she did the ignoring of evil, there was a feeling on her part that her sufferings brought an indefinable spiritual gain. In one of her letters she writes: "I begin to think people who are robust are in a position to pity all the rest of the world, except indeed that there are certain secrets taught only by pain, which are perhaps worth the purchase." In other words, she looked upon suffering as a proof, and believed that in a fashion it elevates and strengthens the soul. Speaking of the despair from which at one time she suffered, she says: "It was that sort of despair that sucked away the sap of half

the hours which might have been filled by energetic, youthful activity, and the same demon tries to get hold of me again whenever an old work is dismissed and a new one is being meditated."

Concerning her visit to Italy is the following entry in her diary: "Alas, I could have done much more if I had been well; but that regret applies to most years of my life. . . . Got into a state of so much wretchedness in attempting to concentrate my thoughts on the construction of my story that I became desperate and suddenly burst my bonds, saying, 'I will not think of writing.'" The printed list of the books, all of the most serious kind, read by George Eliot as a preparation for writing "Romola" is truly appalling, and although only preliminary to the task, it gives some idea of the labour involved in the production of her great Italian novel.

The daily life at her home, the Priory, was one of almost unbroken routine. George Eliot devoted the morning hours to writing; the afternoon to driving, or a walk with Lewes. These walks often led to the Zoölogical Garden, where she found diversion in studying the animals. She knew the fine points of a horse or a dog as well as a specialist. Her passionate devotion to music also led her to seek recreation at concerts. The Leweses not infrequently spoke of themselves as "two nervous dyspeptic people, two ailing susceptible bodies," which could ill bear any inconveniences or interruption of their uniform ways.

The interruptions which pleased George Eliot the most were journeys to the "breezy uplands and pine-clad hills." She speaks of the country as a place where she could enjoy to the full "the sense of standing on a round world." The great writer was neither impatient nor negligent of any of the claims that her sex made upon her. It was the essential femininity of her nature which rendered her lovable to those who, in the first instance, were attracted by the so-called masculine powers of her mind. She writes to her landlady about a broken dish which she hopes she may be able to replace, and all through her life there are traces of the same conscientious care for details.

"Daniel Deronda," the fruit of her ripest scholarship, was George Eliot's last great imaginative work. After finishing this book she wrote to a friend: "As to the great novel which remains to be written, I must tell you that I never believe in future books. . . . Always after finishing a book I have a period of despair that I can never again produce anything worth giving to the world. . . . It is difficult to believe, until the germ of some new work grows into imperious activity within one, that it is possible to make a really needed contribution to the poetry of the world — I mean possible to one's self to do it." "My constant groan," she adds, "is that I must leave so much of the greatest writing which the centuries have sifted for me, unread for want of time."

George Eliot contracted a severe cold at one of the Saturday concerts she attended, which proved to be the last of her mortal ailments. She died suddenly, in the full vigour of her intellect.[1]

There could be no greater contrast to the methodical life and philosophical balance of George Eliot's character than the unstable existence and mental vagaries of the great astronomer Kepler. It is known that from infancy John Kepler (1571–1630) was weak and sickly; that he early suffered from an attack of smallpox, and again from a violent illness which almost terminated his life. Aside from these two instances there is little data as to the particular form of his malady; it is only borne in upon the reader of his biography that physically he was a very unhappy man.

In the world of science Kepler stands as the connecting link between Copernicus and Newton. It is claimed that he distinctly enunciated the law of universal gravitation, but failed to attach to it the importance it deserved. It was Newton who first estimated at their true value Kepler's contributions to science.

Kepler's parents belonged to noble families; but neither one possessed either material prosperity or spiritual grace. Henry Kepler, it is asserted, treated

[1] The materials made use of in this sketch are derived from the following works: George Eliot, by Matilda Blind; George Eliot's Life, edited by J. W. Cross; George Eliot, by C. C. Everett, Andover Review, June, 1885; George Eliot, by F. Harrison.

his wife with a degree of barbarity only equalled by her own perversity. Her fierce nature seems never to have been tamed, for at the age of seventy she was engaged in acrimonious legal contentions, and, owing to her intemperate conduct, was condemned, on insufficient evidence, it is said, to imprisonment and torture. When released from prison she began new action for cost and damages, but this suit was terminated by her death. These particulars concerning Kepler's parents are mentioned because it is no longer the custom to regard the individual as an isolated personality, independent of what has gone before and irresponsible for what may come after. With parents such as his it is not surprising that Kepler's character presented strange contradictions or that his imagination led him into wild scientific and social vagaries.

Although Kepler claimed to have derived from his mother a habit of body more fit for study than for other kinds of occupation, his physical qualifications for any kind of work seem not to have been of a high order. In speaking of himself he says: "For observation my sight is dull, for mechanical operations my hand is awkward, in politics and domestic matters my nature is troublesome and choleric, my constitution will not allow me, even when in good health, to remain a long time sedentary; I must rise often and walk about, and at different seasons am forced to make changes in my diet."

Kepler was recalled from school to serve as a menial in a tavern which his father kept, but eventually he attended a monastic institution, and later at the college of Tubingen took his degree of Master of Arts. After lecturing for a while he joined Tycho Brahe, near Prague, where he lived under the patronage of the Emperor Rudolph II. On his way to Prague he fell desperately ill, and had to ask for patience on the part of Tycho, as well as for money to enable him to continue his journey. When that great astronomer died Kepler was appointed by the emperor Imperial Mathematician and assigned a liberal salary, but its uncertain payment kept him in a state of constant pecuniary embarrassment. It is noteworthy that both he and his predecessor were more highly esteemed by the emperor as astrologers than as astronomers, and Kepler, either from policy or necessity, was driven to the resource of casting "nativities." Although bitterly opposed to the accepted astrology, he had a creed of his own scarcely less extravagant. In other directions Kepler's imaginative mind was carried away by the mysteries of the universe. Aside from metaphor, he seems actually to have believed that the earth was an enormous living animal, with habits related to those of men and other animals. In one of his books he even takes the trouble to refute the belief entertained by some that each planet is carried around by an angel. In his treatise on comets he asserts that "comets come

out from the remotest parts of ether as whales and monsters from the depth of the sea." And the suggestion is thrown out that perhaps comets are something of the nature of silkworms, and are wasted and consumed in spinning their own tails. And yet Kepler set forth the first reasonable theory of optics. He also remarked the identity of the mechanism of the eye with Baptista Porter's beautiful invention, — the camera obscura. Although he failed to detect in his various investigations the true law of refraction, he made noteworthy contributions to the subject, and his theory of the colours in the rainbow approached very near the discovery upon which rested no small part of Newton's fame. His celebrated book on "The Motion of Mars" is in a measure considered to be the foundation of modern astronomy. One of the most important discoveries contained in this work, known as the equable description of areas, was blundered upon by a lucky compensation of errors. It was characteristic of Kepler that he spent years in hunting down with unwearied perseverance his many new theories until at length he arrived at the true one, not so much by proving it as by disproving every other.

As in the case of other great men, Kepler's genius was in large part manifested in his industry. He was no less remarkable for the quality than for the amount of work which he did. His lack of facility as a calculator he attributed to his own temper; for

he says, "I am totally unable to observe any order; what I do suddenly I do confusedly, and if I produce anything well arranged it has been done ten times over." In the calculation of every opposition of Mars (he had not yet introduced the use of logarithms into Germany), Kepler repeated each calculation ten times, so that the whole work for each opposition extended to one hundred folio pages. It was seldom he was able to employ an assistant, and unaided was forced to perform, in most instances, all the drudgery of his investigations. It has therefore been a subject of surprise that his creative faculty, his wonderful vivacity of spirit, should have survived the deadening effect of these interminable arithmetical calculations; but neither time nor circumstances could quench the exuberance of his imagination. Imperfect and costly in labour as his method doubtless was, it is nevertheless agreed that the results were such as to lead to discoveries which in their turn paved the way to some of the most valuable truths of modern science. Among others, his researches on the motions of the planet Mars led to the discovery of the famous theorems called Kepler's laws.

Soon after the publication of the Rudolphin Tables, Kepler entered the service of Albert Wallenstein, the celebrated Duke of Friedland, whose interest in astrology was a curious feature of his bold and resolute character. The astronomer found him a more

liberal patron than any one of the three emperors whom he had hitherto served. His enjoyment of his patronage was, however, of brief duration. Anxious to collect his claim on the imperial treasury for a considerable sum of money, he set out for Ratisbon. In consequence of the fatigue and irritation produced by his fruitless errand, he was thrown into a fever, and died in his fifty-ninth year.

For a large part of his life Kepler lived in deplorable conditions; he and his family were assailed by almost every known malady. The following is his own account of his miseries: "In the first place I could get no money from the Court, and my wife, who had been for a long time suffering under low spirits and despondency, was taken violently ill with the Hungarian fever, epilepsy, and phrenitis. She was scarcely convalescent when all my three children were at once attacked with smallpox. . . . Just as I lost the dearest of my sons, him whose nativity you will find in my book on the new star, the town on this side of the river where I lived was harassed by the Bohemian troops, whose new levies were insubordinate and insolent; to complete the whole, the Austrian army brought the plague with them into the city. I went into Austria, and endeavoured to procure the situation which I now hold. Returning in June, I found my wife in a decline and on the eve of an infectious fever; and I lost her within eleven days after my return. . . . These, methinks, were reasons

enough why I should have overlooked not only your letters but even astronomy itself."

The fiery spirit which animated Kepler's intellectual work gave place in his domestic affairs to the coolest deliberation. The choice of a second wife was the result of a cold-bloodedness altogether remarkable. The claims of no less than eleven candidates, thought of by himself or suggested by friends, were weighed and considered. The longest of these courtships lasted three months, and was abandoned on account of the suspense in which he was kept. Number ten of the list had many of the qualifications he demanded; but in his own words, "her physiognomy was horribly ugly; she would be stared at in the streets." The negotiations were broken off with number eleven on account of her youth. The two daughters of a widow by whom he had been rejected were afterwards included in his catalogue of possible wives, but finally, wearied of the delay, and not finding safety in a multitude of counsellors, he returned to number five, whose claim had previously been considered and whom he thus describes: "Her personal manners were suitable to mine; no pride, no extravagance; she can bear to work; she has a tolerable knowledge how to manage a family; middle-aged, and of a disposition and capability to attain what she wants. Her I shall marry on the thirtieth of next October, with all Eferdingen to meet us, and we shall eat the marriage dinner at the Golden Lion."

Kepler often expressed himself as conscious of his intellectual worth. Speaking of his "Harmonics," he said: "It may well wait a century for a reader since God has waited six thousand years for an observer." The observer waited long for a suitable memorial. When at last an effort was made to build a monument to his memory Kästner was provoked to say: "That it matters little whether or not Germany, having almost refused bread during his life, should a century and a half after his death offer him a stone." A monument was, however, erected in 1803 in the botanic garden at Ratisbon.[1]

[1] See Life of Kepler, by Drinkwater Bethune, in The Library of Useful Knowledge; Brewster's Lives of Kepler, Tycho Brahe, etc.

CHAPTER XI

THE EFFECT OF THE IMAGINATION, WILL, AND HABIT

IT is well known to physicians that if a person's mind is strongly directed to a particular part of the body with the conviction that that part is the seat of disease, disturbances of function and sometimes of structure may arise. The work of an organ may be suspended or depraved; indeed, life itself may be brought to an end, provided the imagination be strong enough to enforce the conviction. Nervous persons, those in whom the connection between mind and body is, so to speak, more sensitive than in other mortals, often suffer from a misdirected imagination, which is especially apt to fix upon the heart as the seat of trouble. Although the heart, physiologists tell us, is to be trusted, in a person of good habits, as are few other organs, its very delicacy of adjustment renders it liable to the disturbing effects of the imagination; even slight disorders of the stomach often express themselves in the irregularities of its movements. Youthful invalids particularly (older ones have learned better) are prone to give over-attention to indigestion and its various com-

plications, thus running the risk of spending a large share of their force in debate with their stomachs. With many nervous people the influence of the imagination, combined with sympathy, is frequently such that they cannot see a companion sick at the stomach without a spasmodic tendency to fall into the same state. Among persons of even highly developed imagination the will, however, when directed to the control of maladies, not infrequently enables them to endure the pangs of disease without interruption either to thought or successful labour. In most cases, however, the will is not strong enough to distract the attention, and in consequence the invalid devotes his time to the profitless consideration of his woes.

A shining example of the power of an obdurate will to triumph over distressing sensation is found in the life of Charles Darwin (1809–1882); also of the capacity to resume quickly an interrupted train of thought. He cultivated the habit of piecemeal work; for the scraps of time which with most people are barren of results were all that he could command. The great unbroken stretches of time that the strong man appropriates to his use, and that all active-minded men and women covet for the accomplishment of their tasks, are unhappily denied to the invalid. He has to be content with odd hours, even odd minutes, and put away chance vagaries, keeping clearly before him what it is he wants to do. When Bulwer was asked how he managed to accomplish

so much, he answered: "By never doing too much at a time; but then I give my whole attention to what I am about."

Suffering as he did from constant nausea, the industry and the achievements of the great naturalist seem almost unbelievable. Once, while standing in the midst of the grandeur of a Brazilian forest, Darwin was so much impressed that he afterwards wrote in his journal: "It is not possible to give an adequate idea of the higher feelings of wonder, admiration, and devotion which fill and elevate the soul. I well remember my conviction that there is more in man than the mere breath of his body." To this thought, with the great searcher after truth in mind, we may add, there is more in man than mere health.

For nearly forty years the naturalist, characterised by Huxley as one of the most exact of observers, most cautious of reasoners, and most candid of expositors of this or any other age, never knew one day of the health of ordinary men, and thus his life was a long struggle against the weariness and strain of sickness. Yet he bore his ill health with such uncomplaining patience that even his children hardly realised the extent of his suffering; his wife, perhaps, was the only person who had any adequate conception of what he endured. It was owing to her constant care in shielding him from annoyance, and in leaving nothing undone that might alleviate the discomforts

of his ill health, that it was possible for him to produce, besides his other great works, the "Origin of Species," designated by one of authority as "the most potent instrument for the extension of the realm of natural knowledge since the publication of Newton's 'Principia.'"

In youth Darwin was active rather than strong, and when a boy could jump a bar placed at the height of the "Adam's apple" in his neck. Although, as was proved later, a taste for natural history was innate, it would have been difficult for those who knew him during the early part of his life to predict the exact lines on which the development of his character and mind would finally take place; yet given his heredity and environment, he at least, in casting about for a vocation, might have felt secure in his ancestral tendencies. His father was an able physician, having great natural powers of observation; his grandfather, Erasmus Darwin, was a poet and philosopher, as well as a partial anticipator of Lamarck's views on evolution; he was also a lover of plants, — indeed, several members of the family were devoted to botany. Darwin's kinsman, Josiah Wedgwood, was a patient investigator in his own field of artistic pottery, and Francis Galton, another cousin, became distinguished for his researches on heredity and kindred subjects.

At Cambridge Darwin was not remarkable as a student, and for mathematics he had as great a dis-

like as he had previously shown at the University of Edinburgh for the study of medicine. He, however, loved to read Shakespeare, was fond of pictures, and often confessed to a coldness and shivering in his back when he heard good music. He was always one of the kindest and truest of men, genial, and warm-hearted; his animal spirits high and his enthusiasm intense. "My love of sport was such," he says, "that I used to place my shooting-boots open by my bedside when I went to bed so as not to lose half a minute in putting them on in the morning; and on one occasion I reached a distant part of the Maer estate on the 3d of August, for black-game shooting, before I could see." Saving this taste, it is certain that no one predilection goaded him to full committal; nor was there any premonition of his future exclusive consecration to natural history. His pursuit of beetles, while ardent, was not scientific, and his ventures into the field of geology were made in the spirit of the dilettante. As yet his intellectual interests were his servants and not his masters; this was so entirely the case that he hesitated between zoölogy and geology; he even thought of choosing the ministry for a profession. In fact the Church, whose established traditions his researches opposed, at one time attracted him strongly. For the above-named calling he had at least one qualification; a German phrenologist insisted that his bump of reverence was greater than that of any ten priests. Later

in life Darwin maintained that his theory of evolution by natural selection was no more inimical to religion than that of gravitation.

Darwin regretted that when he became absorbed in his life's work the higher aesthetic tastes slipped away from him. The poets lost their charm; Shakespeare became so intolerably dull that reading the plays nauseated him, and music only excited instead of giving him pleasure. He insisted that his mind had grown to be "a kind of machine for grinding general laws out of a large collection of facts." "If I had to live my life over again," he says, "I would make it a rule to read some poetry every day and listen to some music at least once a week; for perhaps the parts of my brain now atrophied would thus have been kept active through use." This change in Darwin, frequently seized upon as evidence of the desiccating effect of the study of science, he himself doubtless exaggerated, for his son states that up to the last he enjoyed music, and that a grand or pathetic song often moved him to tears; novels he also delighted in, and his love of beautiful scenery remained fresh and strong. It must also be remembered that not only Shakespeare, but almost everything else, at times nauseated the great interpreter of nature. He was obliged, comparatively early in life, to forsake London and live in the country, for the reason that the excitement of going into society or attending scientific meetings was followed by

shivering and violent attacks of vomiting; the same cause prevented him from receiving many friends at home, and the dread of a journey always gave him a "sinking feeling." In one of his letters to F. D. Hooker he writes: "I have been for some time in despair about my book, and if I try to read a few pages I feel fairly nauseated." Fortunately Darwin had ample means, so that in the isolation at Down in Kent he could carry on his pursuits among his conservatories, his gardens, his pigeons, and fowls untrammelled by practical cares.

Doubtless Darwin's long continued ill health was the indirect cause of the partial loss of the higher tastes. Having taken in a general way, though with most special and detailed work in certain directions, the whole of natural history for his province, he was obliged, since his miserable health stole away much of his time, to protect himself where he could from the temptation to dissipate his mental force.

It has been accepted that Darwin's ill health in later years was due to his having suffered greatly from sea-sickness. On the other hand, in a recent work[1] published by Dr. Gould, he sets forth the theory, supported by convincing arguments, that Darwin's ill health was due to eye strain. He himself, however, ascribed it to the hereditary taint which in past generations showed itself in the form of gout.

[1] Biographic Clinics, by George M. Gould, M.D., P. Blakiston's Sons (publisher), Philadelphia.

Those who knew him best believed that as the years went by, remembering only what was pleasant, he forgot the extent of his discomfiture while on board the "Beagle." Writing from the Cape of Good Hope he says: "It is a lucky thing for me that the voyage is drawing to a close, for I positively suffer more from sea-sickness now than I did three years ago." Admiral Lord Stokes said: "Perhaps no one can better testify to his early and most trying labours than myself. We worked together for several years at the same table in the poop cabin of the 'Beagle,' he with his microscope and I at my charts. It was often a very lively end of the little craft, and distressingly so to my old friend, who suffered greatly from sea-sickness. After perhaps an hour's work he would say to me, 'Old fellow, I must take the horizontal for it.' A stretch out on one side of the table for some time would enable him to resume his labours for a while, when again he had to lie down. It was distressing to witness this early sacrifice of Mr. Darwin's health."

Darwin regarded the "Beagle" voyage[1] as the most fortunate circumstance of his life. It enabled him to lay the foundation for his great work on biological evolution. Indeed, from this expedition he dated a new birth, — the birth that made him the

[1] Its object was to complete the survey of Patagonia and Tierr del Fuego, commenced in 1826; to survey the shores of Chile, Peru, and some islands in the Pacific, and to carry a chain of chronometrical observations around the world.

incarnation of the modern scientific spirit. When the various obstacles to his going were finally overcome — the shape of his nose among other things at one time threatening to lead to his rejection by Captain Fitz-Roy, a disciple of Lavater, who doubted whether any one with Darwin's kind of a nose had sufficient energy and determination for the voyage — he wrote to a friend: "What changes I have had, until one to-day I was building castles in the air about hunting foxes in Shropshire, now llamas in South America. There is indeed a tide in the affairs of men." Speaking of the journey later, he said: "I owe to it the first real training or education of my mind; I was led to attend closely to several branches of natural history, and thus my powers of observation were improved . . . the various special studies, however, were of no importance compared with the habit of energetic industry and concentrated attention to whatever I was engaged on, which I then acquired." It is a curious fact that the development of mind which took place during the five years of his sojourn on the "Beagle" gave outward and visible signs. On his return his father, a man of unusual discernment and no believer in phrenology, remarked on first seeing him, "Why, the shape of his head is quite altered."

It is recorded that even under the unfavourable circumstances of his constant sea-sickness no one ever heard a word of complaint against him. It

was said, however, that every one on board the "Beagle" was so busy as to have no time for quarrelling, — a unique testimony to the moral effect of complete occupation. Since everybody on the "Beagle" was cramped for room, order became a necessity, and it was then that Darwin acquired the methodical habits which he practised in affairs of business as well as in his scientific work; he also learned the golden rule for saving time, *i. e.*, taking care of the minutes. In after life there was nothing so intolerable to him as idleness. The utilisation of time is without doubt one of the most instructive lessons furnished by Darwin to the invalid; for without the thrift that compelled each minute to yield its profit, it is doubtful whether even his rich imagination, his capacity for seeing things that escaped other people's attention, and the persistence of his mind could have reached the vast results that were the crown of a life's devotion to research.

In a letter to Sir Charles Lyell Darwin writes: "I suppose that I am a very slow thinker, for you would be surprised at the number of years it took me to see clearly some of the problems that had to be solved." On the other hand he said: "My industry has been nearly as great as it could have been in the observation and collection of facts"; and again: "God knows I have never shirked a difficulty." Without doubt this famous invalid furnishes the highest possible illustration of the energy, and

not the enervation, of the will so often shown by the sick. Moreover, his temperament permitted his energy to go to its mark, swerving neither to the solicitations of sloth or self-pity. The temptations of excuse-making passed him by, and it is easy to believe that he spent no time in caressing his miseries. He would often say, "Saving the minutes is the way to get work done"; and he never wasted a few spare minutes from thinking it not worth while to begin work. He has proven in his book on "The Action of Worms" the cumulative importance of the infinitely little. Under his treatment the worm actually turns, and is raised to the dignity of a worker of vast geological changes, — planer down of mountain sides, a friend of man, and an ally for the preservation of ancient monuments. Darwin saved time by guarding against having to do things twice; any experiment done was to be of use, and he carefully kept notes of even those that failed. In his experiments with crossed and self-fertilising seed it was his habit to personify each seed as a small demon trying to elude him by getting into the wrong heap or jumping away altogether, thus giving to the work the excitement of a game.

One remarkable characteristic of the great naturalist was his power of sticking to a subject. At times he almost apologised for his patience, confessing that he could not bear to be beaten. He often quoted the saying, "It is dogged that does it." The excitement

of work made him forget for the time, or quite drove away, his daily discomfort. He writes: "I have been as yet in a very poor way; it seems, as soon as the stimulus of mental work stops, my whole strength gives way. As yet I have hardly crawled half a mile from the house, and then have been fearfully fatigued." Another indulgence besides work which he allowed himself was the use of snuff; he generally helped himself, says his biographer, from the hall table, because having to go this distance for a pinch was a slight check. Sometimes when he was in the drawing-room it would occur to him that the study fire must be burning low, and when others offered to see to it, it turned out that he also wished to get a pinch of snuff.

Darwin wrote with great difficulty, and that perhaps was the reason why he wrote well. He took infinite pains to make himself clear, and when a sentence got hopelessly involved he would ask himself "Now what do you mean?" The answer written down would often make plain his idea.

Although bad health impoverished many years of his life, it saved him, he said, from the distractions of society and amusement; at any rate, this was the compensation he found for a misfortune which to a less noble-natured man might have proved to be his ruin. It is evident that in the course of time he and his sickness, each making concessions, grew together in such a fashion that if complete harmony

was not established, antagonism at least was allayed. The publication of "The Variations of Animals and Plants under Domestication" was delayed by an illness which lasted seven months. On another occasion, in a letter to Lyell he writes: "It is now nine weeks since I have done a whole day's work, and not more than four half days." At times he was actually happy when he was able to work a couple of hours a day. In 1879 he writes: "My health is very weak; I never pass twenty-four hours without many hours of discomfort, when I can do nothing whatever . . . and my head being often giddy I am unable to master new subjects requiring much thought . . . at no time am I a quick thinker or writer; whatever I have done in science has solely been by long pondering, patience, and industry."

Darwin died suddenly, in his seventy-third year. Huxley regarded "The Origin of Species" as his chief work. Of this book he wrote: "Whenever the biological sciences are studied the 'Origin of Species' lights the path of the investigator; wherever they are taught it permeates the course of instruction . . . the emergence of the philosophy of evolution, in the attitude of claimant to the throne of the world of thought from the limbo of hated, and, as many hoped, forgotten things, is the most portentous event of the nineteenth century." [1]

[1] See Life and Letters of Charles Darwin, edited by his son, Francis Darwin.

It is obvious from the foregoing illustration that sensational attacks upon the inertia of the invalid are of little avail; nothing but a steadfast purpose to put his one talent out at profitable interest is likely to help him to cut loose from the indolence, gloom, and egoism that beset him. It may be a good deal to ask of a man, cast down by his malady, and floundering in a sea of wretchedness, to concern himself with duties and active benevolences. Nevertheless, his chance of deliverance lies in the strengthening atmosphere of effort. In this warfare all his battles may not be victories; but his failures may become teachers of future success. Washington, it is said, lost far more battles than he won. Horne Tooke used to say of his studies in intellectual philosophy that he had become all the better acquainted with the country through having had the good luck sometimes to lose his way.

In the study of the nervous system it has been found that many of the so-called functional diseases keep themselves going simply because they happen once to have begun; hence the need of the will to interrupt the habit. Our nervous system "grows to the mode in which it is exercised." This statement, Dr. William James asserts, expresses the philosophy of habit in a nutshell. Moreover, he says, "that the hell to be endured hereafter, of which theology tells us, is no worse than the hell we make for ourselves in this world by habitually fashioning our characters

in the wrong direction. . . .The weaning treatment successfully applied to mere complaining or irascible disposition shows us how much the morbid manifestations were due to the mere inertia of the nervous system when once launched on a false career."

William Wilberforce's (1759–1833) active benevolence under the pressure of ill health reveals the power of the mind to turn away the thoughts from personal evils and direct them to the public good. Although the famous philanthropist could not ignore his physical defects, — a small and delicate body, and imperfect eyesight, — like Marcus Aurelius, he was thankful for what he had escaped, and congratulated himself that he was not born in less civilised times, when it would have been thought impossible to rear so delicate a child. He might also have given thanks for an uncommonly able mind, a sweet and affectionate disposition, a power to please, and a remarkably melodious voice. At St. John's College, Cambridge, he certainly ran the risk of being spoiled; for he tells us that "the tutors would often say within my hearing that they, my companions, who were reading hard and attending lectures, were mere saps, but that I did all by talent."

Once at a public meeting, when the audience was thoroughly weary of the contest, Wilberforce mounted the hustings. Boswell, in describing the meeting, said: "I saw what seemed a mere shrimp mounted upon the table, but as I listened he grew and grew

until the shrimp became a whale." Wilberforce's speech concluded, the shout arose: "We will have this man for our county member!" In consequence of this resolve he shortly took his seat in Parliament, as member from York; thus, at the age of twenty-five Wilberforce had won for himself a degree of consideration sufficient to have intoxicated a mind less under the influence of noble motives. The reading of Doddridge's "Rise and Progress of Religion" had already induced him to adopt Christianity as a practical guide. "Pitt," says Wilberforce, "tried to reason me out of my convictions, but he soon found himself unable to combat their correctness, if Christianity were true. The fact is, he was so absorbed in politics that he never gave himself time for due reflection on religion."

To remove any objections his family might feel in regard to his new opinions, which they considered eccentric, Wilberforce chose a line of conduct not always followed by religious devotees, namely, to treat his mother with more affection than ever; show greater respect for her judgment, and manifest rather humility in himself than dissatisfaction with others. His diary indicates that his change of heart was the result of no sudden transformation, but of the most untiring watchfulness and self-restraint. Having learned to rule the empire of himself, he next strove for the advancement of others.

Wilberforce now turned his attention to the great

work of his life, — the abolition of the slave-trade. Asked by Lady Middleton to introduce measures into Parliament for its suppression, he afterwards said: "This application was one of the many impulses which was giving to my mind the same direction." While the discussion was pending, the reformer, who hitherto had done his work in defiance of a delicate body, was overcome by a dangerous illness. In view of his doubtful recovery, Pitt promised to move a resolution pledging the House to consider the slave-trade during the ensuing session. Some of the supporters, however, led by curiosity to inspect a slave-ship then fitting out in the river Thames, came back to the House of Commons with a description which awakened such a feeling of pity, shame, and indignation it was resolved that such evils should not exist even for another session. A bill limiting the number of slaves and providing against their sufferings was proposed and carried by a large majority.

In the meantime, contrary to expectation, Wilberforce began to recover. His restoration to health at that time, and the comparative strength of his later years, was due to the use of opium; but against its insidious power he had the firmness of will to so guard himself that during twenty years he never increased the dose.

While preparing for the approaching debate on the slave-trade, Wilberforce writes in his diary: "To-day very indifferent; came to town. Saturday unfit for

work, but by divine grace was enabled to make my motion so as to give satisfaction." In this speech he set forth so powerfully the evil effects of the trade that Burke declared it one of the ablest and most eloquent ever heard in the House of Commons or in any other place. Although his health required constant watchfulness, Wilberforce toiled unremittingly for the abolition cause. Clarkson and Dickson, members of the anti-slavery committee and named by Pitt Wilberforce's " white negroes," were inmates in his house, spending their time in collecting and revising evidence. Wilberforce speaks of himself also as working like a negro. Amid the agitation of reforms there are glimpses of more pleasing occupations. The philanthropist writes in his diary " walked about after breakfast with Pitt and Granville. We sallied forth, armed with bill-hooks, cutting new walks from one large street to another through the thickets of the Harwood copses." In spite of his protests, Wilberforce's house was overrun with visitors. Hannah More compared it to Noah's Ark, — full of beasts, clean and unclean. It was even found necessary to exchange the smaller volumes with which the bookshelves in the reception room were originally filled for those of a size that could not be carried off in coat-tail pockets.

During the debate on the abolition question the excitement ran so high that Wilberforce's life was threatened. Upon several occasions he was even

challenged to fight duels. In 1795 he writes: "I greatly fear some civil war or embroilment, and with my weak health and bodily infirmities my heart shrinks from its difficulties and dangers." In Yorkshire the hostility to the sedition bill which he had helped to frame was so violent that he thought it advisable to meet his constituents even at the danger of his life. His own carriage not being suitable for the journey, Pitt placed his at the disposal of his friend, a courtesy which involved considerable danger, "for," said a friend, "if they find out whose carriage you have got, you will run the risk of being murdered." As it turned out, Wilberforce's eloquent speech was instrumental in suppressing the riotous element in the county; and, instead of losing his seat at the next election, as had been predicted, he returned at the very summit of popularity.

The outrages which followed the rebellion of the slaves in St. Domingo and St. Vincent served to verify the evil prophecies of the opponents of abolition; therefore the slave bill was again thrown out, and because of the lukewarmness of its friends in Parliament, Wilberforce found himself sick at heart. At all times feeble, he now became dangerously ill. He was, however, cheered somewhat later by the success of his book entitled "Practical Christianity." Its popularity was without precedent, and to it may be largely ascribed the growth of religious feeling in England during the first part of the nineteenth century.

The final debate on the slave-trade resulted in the triumph of the party which for twenty years had struggled, amid every discouragement, to bring about the abolition of the traffic. "Never, surely, had I more cause for gratitude," writes Wilberforce, "than now, when carrying the great object of my life, to which a gracious Providence directed my thoughts twenty-seven years ago." Sir James Mackintosh says of this event: "Who knows whether the greater part of the benefit Wilberforce has conferred upon the world (the greatest that any individual had had the means of conferring) may not be the encouraging example, that the exertions of virtue may be crowned by such splendid success. We are apt petulantly to express our wonder that so much exertion should be necessary to suppress such flagrant injustice. The more just reflection will be that the short period of the life of one man" — and, it might be added, that man afflicted with a weak body — "is, when well and wisely directed, sufficient to remedy the misery of millions."

Troubled by the accusation that he undertook more than he could do, Wilberforce explained the difficulties under which he laboured. "I ought perhaps to mention," he writes, "my not having any great share of bodily strength. Yet occasionally I am able to work double tides, and so, in any emergency, get through a great quantity of work. I believe, on the whole, I get through as much business as many far stronger

persons. Inability to bear great fatigue does, however, sometimes cause my affairs, papers, letters, etc., to fall into confusion." His delicate health, it may be said, kept Wilberforce at all times uncertain as to his power to continue in public office, and at last it compelled him to quit Parliament after forty-eight years of service.

Before he died he was able "to thank God that he had lived to witness the day in which England is willing to give twenty million pounds sterling for the abolition of slavery." Wilberforce's remains were buried in Westminster Abbey, his funeral attended by bishops and princes and the great warrior Wellington. Such was the tribute paid to one who had lived to serve his fellow men and who had deserved to be called "the Attorney-General of the unprotected and of the friendless." [1]

[1] See Life of William Wilberforce, by R. I. and S. Wilberforce.

CHAPTER XII

MANAGEMENT OF BODY AND MIND

IT is noteworthy that attention directed to physical ills is apt to increase rather than to diminish them; for this reason it is desirable that the care of the body should be accomplished by routine in preference to calling on the mind for the constant consideration of its ailments. Since the invalid has comparatively little force to expend, to acquire the habit of doing the right thing is an economy of force; for without the prop of habit exertion has to be brought about by a special exercise of the will. Both coercion and indulgence would therefore seem to be necessary to the invalid's routine of life; coercion to activity in order to keep alive the faculty of effort; and indulgence in all those processes of repair which serve to bring health. The expenditure of energy during the waking hours far exceeds the supply afforded within that period; consequently the extent of repair depends greatly upon rest and the duration and soundness of slumber. Even when the bed does not bring sleep it secures a certain exemption from waste incidental to the vertical posture, and

though the mind be active there is in the recumbent position almost always an element of restoration.

The invalid's body also demands that form of diet which will give him the largest share of strength with the least expenditure of energy in the process of digestion. The whole subject of the relative value of foods is now, however, so carefully considered by physicians that few sick people are doomed to have their ailments aggravated by avoidable mal-nutrition.

Since long habit has impressed on man the need of muscular life, if the invalid's disability renders it impossible for him to adopt an active occupation it becomes all the more necessary that bodily exercise and mental relaxation be secured by some form of play. The hygienic value of play to those in need of recuperation is emphasised by physicians. All exercise of the will, especially when it has to dominate indisposition, lays a peculiar stress on the mind. In diversionary exercise, however, this stress or fixity is interrupted, and for a time the mind — indeed, the mind may be the only part which requires the relief that sport gives — and the body are agreeably exercised without direct control. Hence the value set upon this youthful quality, — this spontaneity, — which in itself is remedial.

It is generally agreed that invalids, above all other persons, should withdraw as far as possible from the contemplation of themselves. "Give your little private convulsive self a rest," is the advice of an expert

psychologist. "Yea, let the very soul be hushed to herself, and by not thinking on self, surmount self," says St. Augustine. Therefore, in order to enlarge the boundaries of sympathy, it is desirable that such persons seek active relations with their fellow men as the surest corrective to the exclusions and denials that in many respects they must practise. Again, while habit is the sick man's staff, yet, after all, rigidity is to be avoided. An old German physician, known to the writer, was accustomed to say to his patients when the stress of continuity of treatment showed itself, "Make some excess"; — that is, have a change, be careless of results — the body is made to be used. And herein lies the difficulty with the victim of hortatory advice. He is commanded at one time to assume the aggressive attitude; to arouse himself out of dull submission, to be strenuous, vigilant day and night, and in all ways exacting of himself. Then again he is enjoined to relax, become passive, disown responsibility, take things as they come; and last, though by no means least, he is sometimes advised to make a baby of himself. It is undoubtedly a difficult matter to go trippingly among the pitfalls of so Janus-faced a career, but the true meaning of this apparent contradiction is that there are times and seasons both for the passive and the militant mood; for coercion and indulgence, according to the direction of that higher power, the physician, who is charged with the well-being of the invalid.

The peace of mind which mitigates strain may, in many instances, be best attained by accepting the theory of justification by faith and by the attitude of mind, rather than by the accomplishment of brilliant works. At any rate, the invalid is protected from the insults of Fortune, and while doing the best he can in the face of the heroic task of utilising life with so great odds against him, may go his way praying "for enough philosophy to keep on good terms with himself and Providence." But, as we have seen, the difficulties of ill health are not insurmountable. It is within the range of choice to exalt the spiritual self over the bodily self, and even though the invalid may not shuffle off the dressing-gown and slippers in which his body is enveloped, it is possible for him to clothe his soul in armour. In this effort he may derive some help from the life of Robert Louis Stevenson, whose rallying power, irrespective of his reputation as an invigorating writer, entitles him to be included among the invalid heroes.

Robert Louis Stevenson (1850–1894) came into the world more or less pledged to a particular profession. His father and grandfather were both light-house engineers. He, however, abandoned both engineering and the law for the craft of letters, and having found his true vocation, quickly gained a footing in the first rank of writers. His ill health prevented much regular or continuous schooling,

but from his early childhood he wrote without ceasing, and as he advanced in years with an eye to the perfection of style he afterwards attained. From the first Stevenson's health was infirm, and he was only kept alive by his watchful mother, from whom he probably inherited his weak constitution.

Stevenson's versatility showed itself in many forms of literary expression: he might have said "Where the bee sucks there suck I." Beginning with boys' stories, he passed on to the writing of brilliant essays, to books of travel, and to a succession of charming romances, all of which, including his political and historical ventures, in their day created a stir in the world of letters. In fact Stevenson was, and still is, looked upon as a great literary expert, and everywhere has been lifted up as a mark for admiration and applause. And now if the face of his renown shines not as brilliantly as in former years, it is through no fault of his: he himself betrays no note of over-valuation of what he did. Besides, sooner or later, as Carlyle said, "Everything not made of asbestos is going to burn." It is not our province, however, to trench on the ground of the literary critic. Stevenson's intellectual distinction is related to our subject mainly because his capacities and energy laid a special emphasis on his ill health. In the game of life he assiduously played his talent and his disease against each other and acquired great power in utilising the force that was in him; more-

over, amidst all the failings of the mortal clay there was a constant renovation of the spirit, — a reinforcement of the will to baffle the tyrant that held the physical man in subjection.

In dealing with his enemy Stevenson practised all the devices of the trained tactician. At times he is patient, almost passive, and creeps along under his load; sometimes he exercises great circumspection in dealing with it; and again, seizing the propitious moment, with brave recklessness knocks over medicine bottles and dashes through hospital walls. His material circumstances not permitting him to live as he would, the need to earn his daily bread often gave to the struggle between body and soul a tragic significance. On one occasion he writes: "This year I shall pass £300. This seems a faint remuneration, and the devil of it is, that I manage with sickness and moves, and education (that of his step-son), and the like, to keep steadily in front of my income. . . . I have to tinker at my things in little sittings; and the rent, or the butcher, or something, is always calling me off to rattle up a pot-boiler. And then comes a back-set of my health, and I have to twiddle my fingers and play patience."

The life of a chronic invalid that Stevenson was compelled to lead was irksome to him above other men, for action was the breath of his nostrils. "Action over every obstacle" was a favourite maxim of his. A great part of his time he spent in bed, and

for whole weeks together he was obliged to carry on conversation with his family and friends in whispers, as well as with the help of pencil and paper. Yet there is ample testimony that even under these circumstances his patience and sweetness were invincible, and his industry such that he seized and made the most of every day and hour of respite, contriving in this fashion to produce work surprisingly uniform in quality and quantity. During the three years he spent at Bournemouth, although so far as his health was concerned the worst and most trying of his life, in point of work they were the most active and successful.

Sometimes he experienced the immense fatigue of living, but even then, to fret and fume seemed to him undignified, — suicidally foolish. The following extract from a letter shows his state of mind in regard to this particular form of temptation: "My cold is still very heavy, but I carry it well. . . . I fear I have been a little in the dumps, which, as you know, sir, is a very great sin. I must try and be more cheerful; but my cough is so severe that I have sometimes most exhausting nights and very peevish wakenings. However, this shall be remedied. There is no more abominable thing than this gloom, this plaguey peevishness: Why (sây I), what matters it if we be a little uncomfortable, — that is no reason for mangling our unhappy wives; and then I turn and grin at the unfortunate Cassandra."

And so he fights his battle magnificently, — so well that his courage should have been matched with a giant's strength, for truly the tale of his life is one of daily and nightly battle against weakness and physical distress.

In the course of time Stevenson and his disease, his aspirations and hopes, became so closely entangled that he ran the risk of making a cult of his misfortune; he is perhaps a trifle over-fond of it; fettered, he finds compensation in rattling his chains. More than this, he exalts his consumption to a literary topic and gives it the permanence his literary skill was able to impart. Still, on the whole, it was not a one-sided business. If the author aggrandised his disease (if that were possible), there can be no doubt that it played an important part in the uplifting of his nature, and also by affecting the everyday ordering of his life it indirectly added to the scope of his experience. The frequent journeys he made on account of his health, — it indeed almost compelled him to put "a girdle round about the earth" in his less than fifty years of life — constantly furnished him with new material before that which he had in hand became stale. Thus to the substance of his art it made its contribution, and to its form, it may be presumed, it was not detrimental — perhaps the reverse; for often, lacking the physical strength to work at the speed exacted by the creative faculty, or when that faculty failed, as, under the circum-

stances, it must often have done, he was able to give the critical power its opportunity to perfect a technique that was instinctively excellent.

But it is best to turn for light on the subject of his bodily ailments to what Stevenson has written about himself; his was the plummet to sound the depth of his sufferings, and his the power to show the height to which his spirit was able to rise above it. "To me," he says, "the medicine bottles on my chimney and the blood on my handkerchief are accidents; they do not colour my view of life." In another letter he writes: "I am no cultivator of disappointment, — 't is an herb that does not grow in my garden, — but I get some good crops both of remorse and gratitude." On the other hand, he somewhere says: "My life dwindles into a kind of valley of the shadow picnic. . . . I have never at command that press of spirits that are necessary to strike out a thing red-hot. 'Silverado' is an example of stuff worried and pawed about, — God knows how often in poor health, — and you can see for yourself the result; good pages, an imperfect fusion, a certain languor of the whole." There were times, however, when his spirits were excellent. It is recorded that he once gave himself a dangerous cold by dancing before a bonfire in the garden at the news of a "Society" Editor having been committed to prison.

That the result was not always proportionate to

his labour is shown by a postcript to one of his letters: "Be it known to a fluent generation that I, R. L. S., in the forty-third year of my age and the twentieth of my professional life, wrote twenty-four pages in twenty-one days; working from six to eleven, and again in the afternoon from two to four or so, without fail or interruption. Such are the gifts the gods have endowed us withal; such was the facility of this prolific writer."

The notable thing about Stevenson is that doing his duty was no perfunctory matter; he threw into his acts so much fire and good will that the effort is usually lost sight of in the cheerful accomplishment; nevertheless he must somtimes have known the sins of omission — the stings of conscience; for he humorously says: "Heaven is — must be — that great Kingdom of Antinomia . . . where the worm which never dies (the conscience) peacefully expires, and the sinner lies down beside the ten commandments."

It is not often that the sick man himself, except by example, is able to supply courage to others; but even this Stevenson succeeded in doing. He writes: "My doctor took a desponding fit about me and scared Fanny into blue fits, but I have talked her over again." One of the most dismal pictures of his condition is contained in the following extract: "I am too blind to read, hence no reading; I am too weak to walk, hence no walking; I am not allowed to speak, hence

no talking; but the great simplification has yet to be named; for if this goes on, I shall soon have nothing to eat — and hence — O hallelujah! hence no eating." Again he writes: "I had a very violent and dangerous hemorrhage last spring. I am almost glad to have seen death so close with all my wits about me, and not in the customary lassitude and disenchantment of disease. Even thus clearly beheld I find him not so terrible as we suppose."

Stevenson's mellow philosophy of life stands forth in the following extracts. He writes to W. E. Henley: "I earnestly desire to live. This pleasant middle age into whose port we are steering is quite to my fancy. I would cast anchor here, and go ashore for twenty years and see the manners of the place. Youth was a great time, but somewhat fussy. Now in middle age (bar lucre) all seems mighty placid. It likes me; I spy a little bright café in one corner of the port, in front of which I now propose we should sit down. . . . Let us sit down here for twenty years, with a packet of tobacco and a drink, and talk of art and women. By and by, the whole city will sink, and the ships too, and the table, and we also; but we shall have sat for twenty years and had a fine talk; and by that time, — who knows? — exhausted the subject.

". . . I am about knocked out of time now: a miserable, snuffling, shivering, fever-stricken, nightmare-ridden, knee-jottering, hoast-hoast-hoasting

shadow and remains of man. But we 'll no gie ower jist yet a bittie. We 've seen waur; and dod, mem, it 's my belief that we 'll see better. I dinna ken 'at I 've muckle mair to say to ye, or, indeed, onything; but jist here 's a guid-fallowship, guid health, and the wale o' guid fortune to your bonnie sel'. . . .

"I used myself to rage when I saw sick folk going by in their bath chairs; since I have been sick myself (and always when I was sick myself), I found life, even in its rough places, to have a property of easiness. That which we suffer ourselves has no longer the same air of monstrous injustice and wanton cruelty that suffering wears when we see it in the case of others. So we begin gradually to see that things are not black, but have their strange compensations; and when they draw towards their worst, the idea of death is like a bed to lie on. I should bear false witness if I did not declare life happy. . . .

"I must say I am a very bad workman, *mais j'ai du courage;* I am indefatigable at rewriting and lettering, and surely that humble quality should get me on a little.

"But if I had the pen of Shakespeare, I have no Timon to give forth. I feel kindly to the powers that be; I marvel that they should use me so well; and when I think of the case of others, I wonder too, but in another vein, whether they may not, whether they must not, be like me, still with some compensation, some delight. To have suffered, nay, to suffer,

sets a keen edge on what remains of the agreeable. This is a great truth, and has to be learned in the fire.

"Yes, you are lucky to have a bag that holds you comfortably. Mine is a strange contrivance; I don't die, damme, and I can't get along on both feet to save my soul; I am a chronic sickist; and my work cripples along between bed and the parlour, between the medicine bottle and the cupping glass. Well, I like my life all the same; and should like it none the worse if I could have another talk with you, even though my talks now are measured out to me by the minute hand like poisons in a minim glass."

Stevenson's love of action is the accent of pathos in his career, and even now, when the hunger of his heart is over, regret is felt that he should have been obliged to spend so large a part of his life in a state of collapse; so often have sat, as he says, "on Charon's pier head." But in his life and in his writings, over and above the sometime sounding of the minor key, everywhere is the note of valour — the seeking for the power to make a just reckoning of life's successes and disappointments, these last awaiting the final judgment of completer enlightenment. This resignation, all the more noteworthy in one in whose mind the sorrows of life were deeply written, and who was too astute to be deceived, too clear-eyed not to penetrate the significance and value of the elements that enter into the composite thing called life.

At Vailima Plantation Stevenson passed some of the happiest and most comfortable years of his life, and it was there, while working with the keen pleasure of the artist whose tools at last had become his servants, that the end came.[1]

Admitting that there is "a selective industry" of the mind, it largely rests with the individual, as we have seen in the case of Stevenson, how far he will expend his mental force in vain repinings, or exercise it in some way useful to others, as well as in a way that will lead, if not to forgetfulness, at least to a philosophical acceptance of the evils of his lot. Indeed a true philosophy of life may in itself become a healing power. There is sufficient evidence that the right mental attitude, and especially the capacity to live above one's maladies, often relieves the sick of burdens that no outside power could lift.

In the management of the body as well as of the soul the will is the supreme agent. Without it, however powerful the intellectual capacities may be, the individual is likely to win little profit from life. There are cases, nevertheless, where the great achievement apparently is independent of either will or effort, — a sort of by-product; something which stands side by side with a man's bad qualities, illustrating how much good can co-exist with defects;

[1] Letters to Family and Friends, edited by Sidney Colvin; Life of R. L. Stevenson, by G. Balfour.

thus, such men have, as by accident, seasons of strength or productivity and are not wholly worthless; they may also be great imaginative writers, — men of the order of Rousseau and Poe. There are others in whom the defect or disease itself, dooming them to early failure or to life-long disability, seems responsible for the occasional outburst of power which makes them important as representatives of imperfect development. A single instance of a defect, not a disease, is furnished by Dalton's valuable scientific discovery of colour-blindness. This discovery was due to the fact that he was colour-blind himself. Turner's wonderful pictorial effects are also attributed to certain peculiarities of his eyesight. The Berlin oculist, Lubreich, was certain that the unusual character of Turner's pictures "was due to his astigmatism, and that if they are viewed through proper astigmatic lenses, these paintings would appear as those of other painters with normal eyes."

To every human being inheritance has doubtless brought a certain capacity for energised will which may be developed for his benefit. Indeed every one may be sure that among the shadows from the past that are in him he may find a great spirit ready to be awakened, and to stand by his side as a helper in the combat of life.

The simple rule for strengthening the will is to exercise it. It must be admitted, however, that the condition of the invalid's body and mind are unfavour-

able for its nurture. Generally sheltered from necessity, he is not compelled to meet the exigencies of life, and thus may lack this important feature of education. It is easy for him to faint and grow weary. Nor is the advice to narrow and solidify his aspirations always enticing to the person whose imagination embraces the larger rôles of life; and yet this is what the invalid has practically to do. In his effort to dominate circumstances, a system of appointment and plan of days such as makes each considerable act come at a perfectly definite time is therefore likely to afford the swiftest and best foundation for success. The life of Prescott furnishes an admirable illustration of the potency of method and habit.[1] Regularity in occupations of any sort gradually breeds in the mind the power of determination. Even when a man is ill, he may often without permanent injury do the required work up to the utmost limits of strength.

Associated action is also found to be a sustaining resource. The soldier, even if his initiative be weak, in company with others may show splendid courage. The simplest school of the will, however, is found in those sports, too often denied the invalid, which require concerted action, willingness to meet the risk of pain, and absolute control of the intelligence in critical moments. Moreover, in the field of sports inheritance is strong, and there, spontaneously and

[1] See chapter on Defects of Sense Organs.

without any great compulsion, the will operates to produce its effect. All forms of human association are in a way schools of the will; therefore the cripple, of all others, should keep his hold as far as possible upon those activities which bring him into concerted action with his fellow men.

Although it is the invalid's fate to combat continuously with his maladies, he may, in the fashion of Kant, accustom himself to consider his body as a machine to be compelled to its task, and its ills as something essentially foreign to himself. The inevitable result of physical pain or of decrepitude is the manifold suggestion of evil. In fact, a large part of most invalids' lives is spent in chronic alarm, in the "fear thought" that takes the place of forethought. The pack of real ills that besets the human body is joined by a host of imaginary pursuers, and the unfortunate creature leads a life like that of the fox when the hounds are in full cry after him.

Even the well person of nervous temperament finds it difficult to keep the spirit from being bound down by the brutal inheritance of fear. Undoubtedly the most effective way to master this blind passion is to acquire the temper of the well-trained soldier, who takes his life in his hand, counting many things more precious than life itself.

Literature enables both old and young to enter, in a fashion, into associated action, or, at any rate, into sympathetic relation with noble men and women of

every time and country, and by adopting their states of mind to gain spiritual momentum for their own endeavours. If a book, noted for its power to move the spirit, fails to awaken response, the reader may be sure that there is some deficiency within himself, or that he lacks proper training in appreciation. In either case reading aloud is often a happy expedient, since a more vivid sense of the meaning is thus acquired; otherwise without this added appeal of the voice the natural inertia of the mind is such as to lead it to be content with but a faint shadow of that which the author sought to put into the text.

The drama also is a valuable mental resource for one cut off from the great tide of action; to compare the conception of a play which he has built up for himself with the performance of some fine actor is stimulating to the sympathies. It is possible thus to study noble characters until, so to speak, the student is able to act the part himself, and in this way to open the gates of a new intellectual world.

To most people the outer world is what the printed page is to the illiterate. By the study of nature the invalid may secure a keener sense of the beautiful, and also through the love of nature his mind may be diverted from himself. While in the mental attitude of worshipper the soul for the time is excluded from selfish considerations. Harriet Martineau's[1] experience in this regard is most suggestive and helpful.

[1] See chapter on Defects of Sense Organs.

The aspects of nature have been so effectively rendered by poets in prose or verse that the invalid, not spontaneously moved to its appreciation, may through their eyes learn to see that which without guidance had remained hidden to him. In this quest there is no method so effective as the art of delineation; the beauty of a flower, a tree, a landscape, or of the heavens, is never so well understood as by those who strive to represent it. While drawing, the student is compelled to observe closely, and to exercise all his latent capacities of comparison and judgment. Ruskin held that everybody could learn to draw, that their eyes could be brightened and their hands steadied, and that they could be taught to appreciate the great works of nature and art without wanting to make pictures or to exhibit and sell them. Moreover, the practice of drawing might go hand in hand with natural history and the habit of looking at things with an artist's eye, which he considered invaluable.

Ruskin himself achieved his exquisite drawings, his inspiring writings, and his teaching with a delicate body, and often under the stress of serious ill health. His unflagging industry and capacity for taking infinite pains with the work in hand were conspicuous features of his character. Nor did he despise mere manual labour or the drudgery connected with the making of picture catalogues. Never was the artistic temperament held in so tightly by the reins of helpful industry, — a willingness to do tasks

more useful than glorious. Towards the last his desultory habits diverted his strength into many channels; but the temptation to one interested in art, science, and sociology to circumnavigate the whole of life instead of concentrating the mind upon some one great work was not without compensation; for Ruskin's sympathy and generosity found outlets wherever human beings were struggling for the realisation of high ideals.

With young people a love of nature may also be reached through the study of animal life. Among other devices a beehive so arranged [1] that the work of the creatures may be watched from day to day is usually a source of unfailing pleasure. Then again, chemistry has the charm which arises from exploring a wide field where surprises abound, and has the peculiar advantage that the whole world of phenomena can be brought within the limits of four walls. In geology there is a still larger field for the exercise of the imagination, but this science, calling as it does for great bodily activity, is, on the whole, unsuited to any but the vigorous. The musical instinct is another blessed resource, and is perhaps the strongest, though not the most universally distributed, of all the sympathetic motives. Rhythm and melody are indeed the keys to those closets of the mind in which the sympathies are imprisoned. The original of all musical instruments is the human voice. With

[1] See account of Huber, Chapter VII.

the help of this natural outlet for expression the invalid may learn quickly to pass from the burdened state which illness brings to a more joyful plane of existence. Song, because of its association with words, is more potent than instrumental music in awakening the spirit.

The mention of song recalls Elizabeth Browning, not that she had, so far as we know, the physical gift of melody; but she had in large measure the contentment and aspiration that go with the power to sing. Matthew Arnold somewhere speaks of "the sick and sorry"; his remark suggesting the idea that to be sick is necessarily to be sorry. While this unfortunate alliance — the hypochondriac's state of mind — doubtless is found with most invalids, in Mrs. Browning's case we get no such impression. Although from her youth up, for a great part of the time, she was under the discipline of ill health, she refused to be miserable. The truth is, to fill successfully the rôle of the wailer there must be a sort of consent in the mind, and this consent she never won for herself. Nor did she make of her illness the waters of Babylon by which she must always weep. Her interest in life as a whole was greater than her interest in the sick-room crisis. Indeed, she evolved so much joy out of existence that one is tempted to felicitate her upon the conditions, unhappy as they were in many respects, which enabled her to touch the goal of fortune. No matter how grievous was

her bodily state, she was yet able to carry on her studies, — either Stoic enough to work on under the stripe, or so happily constituted as to crowd out with brighter thoughts the misery of it, — to write, to cultivate her friendships, and even more than these, to win for her husband, the famous poet, who always remained her lover. Life may yield more than the things she achieved or than fate thrust upon her, but the record of them is not often met with.

When Mrs. Browning does strike the minor key it is with no bitterness; she treats her ill health civilly, humorously sometimes, but makes no fetich of it. Occasionally she has her outbursts — it is too much to ask of any human being, sick or well, constant repression; to drink Hemlock, as she herself suggests, and yet not make a speech. In one of her letters she says: "I struggle against a sadness which is strong by putting a levity in place of it"; that is, her light thoughts bubble at the top to hide what is dark underneath. Again she wishes that soul and body would draw together — regrets that sickness and life do not go blithely with each other. The rod of discipline is evidently above her, but somehow, compared with its black threat for others, she seems to see it only as a thing stripped of the leaves of the greenwood.

The childhood of Elizabeth Barrett Browning (1806–1861), the most distinguished of modern poetesses, was passed amidst beautiful scenery and

in a home of wealth as well as of happy influences. Her extraordinary talents early revealed themselves; in truth, the Muse's kiss followed close upon her mother's. At ten she could read Homer in the original, and at seventeen wrote an "Essay on Mind," which showed familiarity with the thought of Plato, Bacon, Locke, Bolingbroke, and Condillac. After this some years were spent in severe study of Greek literature. Her learned master — her Roger Ascham — was Hugh Stuart Boyd, to whom she afterwards dedicated her beautiful poem, "Wine of Cyprus."

> "I think of those long mornings,
> Which my thoughts go far to seek,
> When, betwixt the folio's turnings,
> Solemn flowed the rhythmic Greek."

When about eighteen, while endeavouring to saddle her horse, Miss Barrett met with an accident which injured her spine and compelled her for a long while to remain in a recumbent position. After this she broke a bloodvessel, and henceforth was more or less an invalid. Her next great misfortune was a tragic incident. Her favourite brother, Edward, who had come to see her at Torquay, where she had gone for the benefit of her health, went out in a skiff with some friends and the whole party was drowned in Babbicombe Bay.

From Torquay she wrote to Mr. Horne, ". . . I am revived just now — pleased, anxious, excited altogether, in the hope of touching at last upon my

last days at this place. I have been up, and bore it excellently — up an hour at a time without fainting — and on several days without injury." Evidently the change of scene did not take place as soon as she expected, for two months later she writes: "I am gasping still for permission to move . . . and in the meantime, being tied hand and foot, and gagged, I am wonderfully patient."

Later, shut up in a commodious room, part of the time darkened, in her father's house, and cut off from the society of all but her family and one or two friends, reading was her principal resource. According to Miss Mitford, "she read almost every book worth reading, in almost every language, and gave herself heart and soul to that poetry of which she was born to be the priestess." Besides steeping herself in serious literature, she was also a great reader of novels. Writing from Florence at a later time she says: "All I complain of is the difficulty of getting sight of new books, which I, who have been used to a new sea-serpent every morning in the shape of a French romance, care still more for than my husband does."

At the same dark period of sickness and sorrow already alluded to, Miss Barrett, wishing to read the Old Testament in the original, acquired a thorough knowledge of Hebrew. Her affinity for that language is shown in her next work, "The Drama of Exile." In 1844 she published her collected works,

— at least such as she wished to preserve. In this volume appeared for the first time "Lady Geraldine's Courtship," written in what seems the almost incredible space of twelve hours, especially when it is remembered that the author was a confirmed invalid, — "just dressed and supported from her bed to her sofa for two or three hours, and so back again," — but such, nevertheless, was the inherent strength and vitality of her spirit.

Miss Mitford, who at the height of her celebrity would sometimes leave her rose-covered cottage and ride for forty miles to pay Miss Barrett a visit, declares in her "Recollections of a Literary Life" that she was one of the most interesting persons she had ever met. She spoke of the wonderful expressiveness of her face, of her tender eyes, and her smile that was like a sunbeam; indeed she impressed her "as a delightful young creature, shy, timid, and modest." On another occasion she writes: "She is so sweet and gentle and so pretty that one looks at her as if she were some bright flower." And yet it was not long after their meeting that this same bright flower was writing letters to Mr. Horne (her old friend and, in a fashion, literary associate) full of learning and poetic fancy, giving a foretaste of her literary criticisms (her theory was that the discrimination of the beautiful is the art of criticism and not the finding of fault), published later in the "Athenaeum," and regarded as among the finest ever published.

It is certainly remarkable that over and above the wear and tear of the sick-room, the poetess was able to preserve the delicacy and freshness of her soul. Moreover, she identified herself thoroughly with the country in which the large part of the remainder of her life was spent, showing the deepest interest in the development of Italian freedom. In gratitude for her sympathy with Italy, when she died in Florence the municipality of that city voted a tablet with an inscription by Tommaseo, to be placed to her memory on the walls of Casa Guidi, which she had rendered famous by having made it her home.[1]

[1] A Study of Elizabeth Barrett Browning, by Lilian Whiting.

CHAPTER XIII

THE PRACTICAL WORK OF LIFE

IT may be safely asserted that there never was a time when as much was put into life or as much taken out of it as at the beginning of this new century; and while life has, more than ever before, become compact and intensified, it has also become exceedingly varied. But fortunately no large part of the several hundred distinct lines of activity, which a fully organised society offers, demands any great strength of body for success; by far the larger share calls more especially for moral qualities, such as the cripple may possess. By means of these qualities it is possible for him to have a peculiar value to society, a value like that of the old soldier who, though shorn of his limbs, has won the endurance of spirit bred of arduous campaigns. Separated in a great measure from the more eager enjoyments of life, even if owing to his maladies he brings to his work diminished power, he may, at the same time, bring greater steadfastness of purpose than men of unabated strength. "Time and I against any three," was King Charles V's motto. In one of his letters

John Richard Green says: "The world moves along, not merely by the gigantic shoves of its hero workers, but by the aggregate tiny pushes of every honest worker whatever. Circumstances spur us as much as they hinder us; it is in the struggle day by day with them that we gain muscle for the real life fight. *Respice finem,* the old monks used to say in their meditations on life — consider the end. . . . One must look greatly forward to the great. In the light of it, one sees how the very patience of a thwarted day may be one's 'work' to the end."

Literary work had always been an unfailing source of pleasure to the invalid, and if we were to eliminate the contributions of this class of persons the literature of the world would be considerably impoverished. Among the valiant toilers in this field John Richard Green (1837–1888) ranks high. Although it was out of harmony with his natural bent, he resigned himself to the life of an invalid. "I don't grumble," he says, "for after all such a life is no obstacle to quiet writing, and may perhaps lead one to a truer end of life than one had planned. But sometimes there comes over me a rebellion against the quiet of the student life, a rush of energy and longing 'to battle,' and then it is hard to beat one's wings against the cage the Fates have made for one."

The charming ease and vivacity of Green's style cloaks the research and indefatigable industry of the laborious student. "His story," says Leslie Stephen,

" is that of a brave man's struggle to do his work to the last, carried on with unsurpassed gallantry against the most distressing difficulties. . . ." Green speaks of himself as an impulsive, sickly little fellow, having a sense of being weaker and smaller than other boys. He was shy, loved books, and had the habit of singing about the house. Though poor, his father determined to give him a good education. Referring to his school life he writes: " All was not fun or poetry in these early school days. The old brutal flogging was still in favour, and the old stupid system of forcing boys to learn by rote. Play had little charm for me; I was soon tired by a run and too weak and pettish for the rougher horse-jokes of stronger boys." Unfortunately, the " hardening system " was applied to him with the result of increasing the delicacy of his fragile constitution. Cut off from the physically active side of life, books became his chief resource.

Green's artistic sensibilities were stimulated by the high-church atmosphere in which he lived. The study of church architecture became his favourite pursuit. " It must have been," he says, " a strange sight to see the very little boy spending all his ' Saints' Days' not in play, but in hunting up churches where he might shut himself up to rub brasses (a bribe to the sexton to let him in) or take notes of architecture. My first knowledge of Freeman was when he used to carry ' little Johnny,' then thirteen, on his shoulder

round Millard's library because I was so well up in mouldings." As with Bunyan, bells also had their poetry for Green, and the Oxford peals would always fill him with a strange sense of delight.

At the end of one of his letters Green signs himself "Faithfully (feebly, weakly, dizzily, mopily, faintly, dreamily, dully), J. R. Green." And yet, as he said: "My theory of life is no mere indolence theory. I have worked hard, and mean to work hard, on things which have a worthy end and use. What I protest against is mere asceticism, a blindness to what is really beautiful and pleasurable in life, a preference for the disagreeable; above all things the parting of life into this element and that, and a contempt of half the life we have to live, as if it were something which hindered us from living the other half. Mind and soul and body, — I would have all harmoniously develop together; neither intellectualism, spiritualism, nor sensualism, but a broad humanity." Such a development the historian himself illustrated. Tennyson once said to him, "You're a jolly, vivid man, and I am glad I have known you; you 're as vivid as lightning." Green was a great talker, and was said to have given out as much information as he absorbed.

However strenuously a certain class of writers may labour to prove that men of talent and genius are degenerates, there could be no saner or more wholesome theory of life than this which Green professed

and also practised. In one of his letters he writes: "I was struck with the great good hardship had done, and wondered whether, if want had ever looked me so hard in the face, I should be the weak, easily-shut-upable creature I am. And yet I fag pretty well — some seven or eight hours *per diem,* and my brain was never so vigorous. . . . There is no need of optimistic distortion; people must be spurred to help themselves." And again: "It is curious how steady work steadies one's physical system as well as one's morals." Towards the end Green's work was done with great effort. For many weeks he could not sit up or take solid food. He was unable to hold a pen, or even to make pencil corrections on a proof. At intervals he could dictate for a short time, or go through references with his wife's help. Much of "The Making of England" was wholly rewritten four times. This extraordinary achievement tried his strength to the utmost; but it was no sooner published than he began to work upon the "Conquest of England." The historian's idea of a good literary style was the same as David's idea of a procession: "The singers go before, the minstrels follow after; in the midst are the damsels playing on the timbrels."

It is asserted that Green's force of will and enthusiasm for his work kept him alive for two years longer than any doctor would have thought possible. He told his wife that what kept him alive was dread of separation from her. In order to find alleviation

for his malady — consumption — he journeyed to and fro from England to Italy, spending the summers in his native land and the rest of the year in Capri.[1]

Although the victim of the same disease as Green, Schiller's poetical temperament, with its keen sensibilities, probably made his burden of ill health still more grievous to bear; and yet he too heroically met the conditions that fate imposed upon him. Schiller's father was also something of a poet, and, from all accounts, his mother was a woman of noble character. Her son was said to have resembled her; a statement that conveys no exalted idea of her beauty, since he is described as having been tall, his neck long, his face pale, eyes small, and his head full of curl-papers, with a huge queue dangling at the back. With advancing years his countenance gained in beauty and dignity, and Goethe remarked, "that everything about him was elevated and noble, but his eyes were soft."

Schiller (1754–1799) was frail from early childhood, and it is reasonable to suppose that the years spent at Karl Eugen's military academy were as injurious to the boy's body as the mental discipline was uncongenial to one of his poetical temperament. In the course of his life he voluntarily sought acquaintance with more than one profession, and the knowledge of others was ruthlessly thrust upon him. In

[1] See Letters of John Richard Green, edited by Leslie Stephen.

his wanderings through the paths of learning, he came to know it in its humanistic, scientific, and military aspects. The six years which the youth was compelled to pass at the Duke of Würtemberg's military school were the most cheerless and the most exasperating of his life. His distaste for the law, a part of his task, reached the point of disgust before he was allowed to relinquish it, and then it was replaced by medicine, which was scarcely less repugnant. Whatever time was left after his irksome studies he devoted to the works of the poets.

Schiller's genius only fully asserted itself in his nineteenth year, when all the pent-up fury slumbering in the breast of the sickly youth burst forth in a drama, destined to mark an era in the history of literature. "The Robbers," a product of the "Sturm und Drang" period, created a furore. Karl von Moor, the principal character, became the hero of the hour. His revolt against social order, which was none other than the revolt of Schiller's own soul against the impediments that had blocked his way, met with unbounded applause on the part of the young and ardent. Men of calmer judgment were dismayed at the revolutionary spirit of the play. The Duke of Würtemberg was so far scandalised by its defects as to offer to revise and improve the author's future works. When this proposition was coldly received, he advised Schiller to stick to medicine and beware of writing poetry. Anxious to see

the first representation of his play at Mannheim, the poet secretly visited the theatre; his incognito was discovered and he was put under arrest. Consumed with indignation, he resolved, at whatever cost, to leave the academy and seek his fortune in the world beyond. Finally, making his escape, he says, "I went empty away; empty in purse and hope." For a while he made his home with Frau von Wolzogen. Here, encouraged by sympathy and strengthened by the comforts of domestic life, he resumed his literary work, for, according to Carlyle, he did not belong "to the whining and sentimental sort. He was not one of those who spend, in cherishing and investigating and deploring their miseries, the time which should be spent in providing a relief for them." During this first year of freedom he produced two tragedies.

Lacking the minor dexterities of management, as theatre poet at Mannheim (an office Schiller had been induced to accept), he failed both to placate the vanity of the actors and to satisfy the caprice of the public. He therefore journeyed to Leipsic. From that place he wrote to his friend Huber, whose companionship he desired, that he no longer wished to conduct his own housekeeping or to live alone. "The former is not by any means a business I excel in . . . it costs me less to execute a whole conspiracy in four acts than to settle my domestic arrangements for one week. . . . I fall headlong out of my ideal world, if a holed stocking reminds me of the real world."

Single in his devotion to literature and untiring in his efforts to learn, whatever evils Schiller may have known in his life they were not the result of idleness. Of no one could it be more truly said, "The student is always attaining; never has attained." During his seasons of fervid composition he worked at night. In the morning hours the banks of the river Elbe were his favourite resort, and often while tempests raged, he floated in a boat upon its unquiet waters, the turbulence of nature acting as a sedative to his feverish unrest.

When Goethe and Schiller first met at Weimar there was little mutual sympathy. The younger poet felt uneasy in the presence of one whose brilliant conversation and wealth of resources dazzled without reassuring him. While, on his part, Goethe believed that if a work of such moral and poetical paradoxes as "The Robbers" should retain its popularity, his own efforts, directed towards greater purity and precision in all departments of art, would count for naught. In the course of time, however, these two great men became friends and fellow-workers.

Appointed professor of history at the University of Jena, the wandering stage of Schiller's career was ended. He writes: "What a life I am leading here! . . . my existence is settled in harmonious composure, not strained and impassioned, but peaceful and clear." Indeed his happiness cloaked his danger, for very soon consumption laid its pitiless hand upon

him. "Schiller might recover," said one of his friends, "and have sound health again, if he had not to decide in case of sickness whether his salary of two hundred thalers should be spent in the apothecary shop or in the kitchen." Fortunately the poet was equal to the adversity that darkened and made difficult the closing years of his life. He disdained "to dwindle into a whining valetudinarian," and with the partial recovery of his health carried on the business of his life, hampered, but unconquered by the enemy that assailed him; indeed it seemed to add a finer temper to his courage. As time went on, had it not been for his mortal disease, he had little to complain of. He was surrounded by friends, applauded by the nation, happy in his family relations, and comparatively free from pecuniary care. Although his body was weak, his mental activity was at its height, and his zeal unabated. Refusing to make any concessions to calamity, he defied the malady that was slowly sapping his vitality. In the summer season Schiller worked in a garden in the suburbs of Jena, where there was a small house with but one room in it. The neighbours frequently heard him declaiming, and, from the heights opposite his house, would see him walk swiftly to and fro, then sink into a chair and begin writing. He seldom ceased from his labours until four or five o'clock in the morning.

The poet was open-hearted, kind, and sympathetic,

So far as his genius was concerned he was singularly modest, and his intellectual efforts were made without consciousness of their greatness. The sublime and beautiful were the essentials of his life. He asks: "How is the artist to guard himself from the corruption of his time?" He answers: "Let him look upward to his dignity and his mission; not downwards to his happiness and his wants." In speaking of the poet he says: "It is not enough to depict sensations in beautiful colours; one's sensations must be beautiful in themselves. . . . All that a poet can give us is his individuality . . . this must therefore be worthy to be placed before the world and posterity."

Towards the end the prayer wrung from Schiller's valorous soul conveys some idea of the heaviness of the burden he bore. He says: "Heaven grant that my patience may not give way, and that a life so often assailed by sufferings like those of death itself, may still retain any value in my estimation." Yet under these conditions, finding in immediate labour the staunchest upholder of the spirit, he persisted in his work, and the best of it was done when his health was gone. "By his resolute and manly conduct," says Carlyle, "he disarmed sickness of its cruellest power to wound — his great aim was to unfold his spiritual faculties . . . bent upon this, with the steadfastness of an apostle, the more sordid temptations of the world passed harmlessly over him."

Schiller was but forty years of age when his premature death chilled the heart of Europe.[1]

The more delicate and refined of the mechanical arts have long been favourite occupations of the physically defective, — watch-making especially. This, however, is sedentary work, and like the other forms of mechanical labour, which employ without entirely occupying him, is, on the whole, disadvantageous for the cripple, for the reason that the mind is left free for brooding. Of recent years the inventor, pure and simple, has come into existence, — the man who creates new mechanical appliances or perfects the inventions of others. Those who attain skill in such work usually have fortune and fame before them; but success is rarely achieved without a tolerably complete mechanical education; lacking such education men are apt to wander in a field of idle speculation.

James Watt (1736–1819) was one of the most remarkable and successful among the physically weak who have entered the field of mechanical invention. The natural bent of this great inventor's mind, as well as the whole course of his self-imposed training, enabled him to seize and apply at the right moment the principles involved in the construction of the

[1] An autopsy that was held revealed the decay of almost every vital organ; the lungs, the heart, the liver, and the bladder were all diseased.

For further particulars see Life of Frederick Schiller, by Emile Palleske; Life of Frederick Schiller, by Thos. Carlyle; Life of Frederick Schiller, by Johannes Scherr.

steam-engine. The man who perfected and brought into general use the machine which has revolutionised the trend of modern civilisation, was, during childhood, exceedingly feeble. His delicate health disqualifying him for the sports enjoyed by other boys, he became fond of study, reflection, and solitude.

Sick headaches, sometimes lasting several weeks at a time, remained with Watt during the eighty-three years of his life. It is said he was often seen sitting for hours by the fire, with his head resting upon his hands, unable to utter a word. When suffering from ill health, and overcome by the vexations with which he had to contend in the working out of his inventions, he would be heard to say: "Of all things in life there is nothing more foolish than inventing."

Towards the end of his school days Watt's general health improved, and at the same time his mental powers were more highly esteemed; but his real education, his knowledge of science, the languages, and literature, was acquired without the aid of schools, and was due to self-culture alone. Some nautical instruments found among his father's ship stores first awakened his interest in astronomy. Indeed, he could never look upon any instrument or machine without wishing to learn the details of its construction. His natural love of wild plants prompted him to study botany, and later in life he learned German, French, and Italian in order that he might gain, through their medium, information bearing upon his inventions.

At the age of eighteen Watt went to Glasgow to learn the trade of mathematical instrument maker, and thence to London, where it cost him eight shillings a week to live; lower than this he could not reduce his expenses "without pinching his belly." When night came, after ten hours of hard work he was exhausted, and his health failing him, he returned to Glasgow, where, in order to eke out his slender means, he undertook any work requiring mechanical ingenuity which came his way. Although he could not distinguish one note from another, convinced that Science could take the place of natural gift, he studied the philosophical theory of music, and constructed an organ that elicited surprise and admiration. After this first success he made almost as many musical as mathematical instruments.

It was not until 1763 that Watt entered upon systematic investigations with reference to the steam-engine. The University of Glasgow owned one of Newcomen's engines. This clumsy little machine, which would not work properly, and was run by a boiler no larger than a teakettle, was placed in Watt's hands. At once he set to work to solve the problem, and in the course of his researches came upon one fact which more than any other led to his great invention; this fact was the existence of latent heat. But in spite of the discovery, he continued, he says, "to grope in the dark, misled by many an *ignis fatuus*." At last, while out walking one Sunday

afternoon, light flashed upon him, and the riddle was solved; he had only to produce a vacuum in a separate vessel, etc. Although he had discovered the principles upon which it depended, and in his imagination constructed the engine, it was many long years before the idea was successfully carried out. In December, 1774, he writes to his father from Birmingham: "The business I am here about has turned out rather successful, that is to say, the fire-engine I have invented is now going, and answers better than any other that has yet been made." Such was the modest announcement of the greatest invention of the age.

Watt's business partner, Boulton, far from being a tradesman only, was known as "the patron of art and science, and the friend of philosophy." Moreover, he had the courage to expend £47,000 upon the manufacture of Watt's engines before any profit was gained. The basis of his confidence was shown in the remark he made to a gentleman who had come to inspect his works: "I sell here," said Boulton, "what all the world desires to have — power."

The strain involved in the thought that was necessary for the development of Watt's series of beautiful inventions, unsurpassed in modern times, found no palliative in the circumstances of his life. He was poor, delicate, and sensitive; he worked amid vexations and discouragements, and not infrequently, in the bitterness of his spirit was heard to exclaim: "I curse my inventions!" Yet harassed and baffled as

he often was, he was given a long term of life in which to manifest the creative power that was within him. Great, however, as were Watt's intellectual achievements, his perseverance, self-denial, and devotion, under the most trying circumstances, count for as much in the estimate of the man as the glory won from his inventions.[1]

It is conceded that those of unsound body, if endowed with a commanding will and a certain toughness of fibre which often goes with invalidism, may assume the duties of the medical profession. As a fellow-sufferer he can approach his patient as no perfectly healthy physician can. However keen may be the imagination of the eupeptic doctor, he cannot so well understand the state of the mind or body of a dyspeptic patient. Every physician knows how great is his advantage in dealing with some obscure malady if he happens to have had a personal experience of it; so, too, the patient himself may find a healing confidence, nay, more, a satisfaction in the fact that his physician likewise has had something to endure. The medical profession, like all the other great branches of employment, is divided into specialties, some of which do not demand exposure beyond the power of the invalid to stand.

In the law the task of convincing twelve diverse-

[1] See Life of James Watt, by James P. Muirhead; Life of James Watt, by Andrew Carnegie.

minded men of the right of a certain cause demands all the resources of a strong man. It is true some of the greatest advocates in court and legislature the world has known have been men who were more or less invalidated, or at least have had to struggle against physical infirmities. The spectacle of a powerful mind in a decrepit body is always imposing; but in general, the profession of the law is not a fortunate field for those who have to guard their health. Daniel Webster, however, as we have seen, was, at the beginning of his legal career, without sound health.

William Pitt (1759–1806) was not only delicate when he entered on his profession, but remained so during the whole of his life. His political career began about the close of the American war, lasted during the French Revolution, and ended with the battle of Austerlitz. The "Great Commoner's" genius developed early. In one of her letters his mother says: "The fineness of William's mind makes him enjoy what would be above the reach of every other creature at his small age." When still very young he wrote a tragedy, remarkable for the fact that there is no love in it, and that the interest of the plot turns on a contest about a regency. It is noteworthy that the most agitating struggle of the author's political life was occasioned by the proposed regency of the Prince of Wales, and the absence of love was prophetic of the small part it was to play in

the after life of the statesman. It may be as well to state here that Pitt never married. He came near experiencing the emotion of love on one occasion, but prudently concluded that his means did not justify its indulgence.

Pitt's health was early the subject of care. In his father's letters the phrase "My poor William is still ailing" is of frequent occurrence. While anxious about his body, Lord Chatham was equally solicitous about the intellectual development of his son. When questioned, late in life, upon his facility of speech and his readiness in finding the right word, Pitt said he believed whatever power of this kind he might possess was due to the fact that his father had exacted from him the practice of taking any book in a foreign language with which he was familiar and reading out of this work a passage in English, stopping, where he was not sure of the word, until the right one came to his mind. Lord Chatham, a master in the art of delivery, also trained his son to use and modulate his fine voice with exquisite skill.

Owing to the state of his health, Pitt was educated at home until the age of fifteen, when he was sent to the University of Cambridge. Here he laboured to attain oratorical excellence. It was his custom to compare opposite speeches on the same subject, and to observe how each speaker managed his own side of the question. He also studied Adam Smith and became his first powerful disciple. His familiarity

with the "Wealth of Nations" gave him a great advantage over the other statesmen of his time, whose ignorance concerning finance is illustrated in the remark made by Fox, who was heard to say that he did not know why the funds went up or down, but he liked to see them go down, because it vexed Pitt.

While at the University, Pitt's failing strength caused alarm. His physician prescribed early hours, careful diet, exercise on horseback, and a liberal use of port wine. In the course of time the antidote was converted into the bane, and it has been supposed that its too free use added to the toil and care of the statesman's laborious life, shortened his days. During his seven years' stay at the University, his tutor said: "I never knew him to spend an idle day, nor did he ever fail to attend me at the appointed hour. He was always," he adds, "the most lively person in company, abounding in playful wit and quick repartee." The strictness of his morals was maintained, not only at college, but throughout his life. In appearance he was tall and thin, with a lofty bearing, but without either grace or elegance, and, notwithstanding his social nature, his manners were stiff and cold. In this particular, as in other ways, he presented a striking contrast to his adversary Fox. Fox's constitution, for instance, was so robust that a spoonful of rhubarb, according to his account, was sufficient remedy for all the bodily ills he had ever known.

At about the age of twenty-one Pitt entered Parliament, and at twenty-three, as Chancellor of the Exchequer, he became a member of Lord Shelburne's cabinet. His speech in reply to Fox, after the defeat of the Earl of Shelburne, is regarded, for one of his age, as the greatest oratorical effort of modern times. This speech was delivered while suffering from intense physical discomfiture. His stomach was so disordered, indeed, that during his opponent's speech he was actually vomiting. While Lord Chatham was noted for his fiery bursts of eloquence, his son, on the other hand, was remarkable for the luminous array of his arguments. Lord Macaulay somewhere speaks of Pitt's majestic self-possession. This, however, was an acquired and not a natural attribute of character. When a boy, his mother called him "Eager Mr. William," and his father spoke of him as "Impetuous William." It is stated that upon one occasion, in the company of several other persons, the discussion turning upon the quality most desirable in the Prime Minister, one said eloquence, another knowledge, and a third, toil. Pitt said, "No, patience."

After the defeat of the Shelburne ministry, the premiership was offered to Pitt, but the sagacious youth declined so splendid an offer. Later, however, when the king again invited him, "as the only adequate antagonist of Fox," to become his prime minister, without a moment's hesitation he accepted.

Earl Stanhope justly says, "A youth of five and twenty, who raises himself to the government of an empire by the power of genius and the reputation of virtue, is a circumstance unparalleled in history, and in a general view is not less glorious to the country than to himself."

For nearly nineteen years Pitt remained first Lord of the Treasury and undisputed chief of the Administration. Since parliamentary government was established in England, no English statesman had held power so long. This remarkable endurance of responsibility is a unique testimony to the power and efficiency of Pitt's will, to the potency of spirit that could maintain itself above the wreck of his health. Already weakened by frequent attacks of indigestion and gout, Napoleon's victory at Austerlitz was the finishing blow for Pitt. He never rallied from the shock. Henceforth he wore what Wilberforce called "the Austerlitz look." The body of the Rt. Hon. William Pitt was interred in the same tomb with that of his illustrious father. "What grave," said Lord Wellesley, "contains such a father and such a son! What sepulchre embosoms the remains of so much excellence and glory!"[1]

Although men of weak bodies often seek the ministry, success as a spiritual adviser demands a large measure of health. His moral worth being somewhat

[1] See The Life of Pitt, by Earl Stanhope, and The Essay on Pitt, by Goldwin Smith, in Three English Statesmen.

hidden, those who most need his help are apt to require some outward manifestation of manliness and vigour. A physician is taken for his known skill in curing disease, or an advocate because of the fame he has gained in winning lawsuits, but in spiritual endeavour there is no such test. The minister cannot build up his reputation by a list of the people he has cured of their sickness of soul, or has helped to win in their combat with the devil. Moreover, spiritual leadership depends, in a way, upon mesmeric force. The man in his aspect should therefore have something of the prophet; as a proclaimer of truth should in a fashion approach the artistic ideal with which pictures have made us familiar. Phillips Brooks undoubtedly owed in no small degree his great influence to his superb physique. On the other hand, sickness may help the minister to sympathise with the maladies of others, — Saint Paul speaks understandingly of the "thorn in the flesh," — also the mental conflict he has had in attaining mastery over his own body may make it easier to help the spirit of other sufferers. Robert Hall, of whom an account is given elsewhere, is an instance of the physically defective among great preachers. And yet in spite of such instances, for the sick of soul there is nothing comparable to the comfort drawn from abundant vitality. The tasks which ministers are obliged to face are manifold, such as come to all men at the great crises of life, — the trials which death brings to the dying

or to those who survive. For this work the spiritual adviser needs all the health, the hopefulness, the confidence in the eternal goodness of the universe which the vigorous and normal man may command. There are, however, marked exceptions to this general statement. Though destitute of health, William Ellery Channing had pre-eminently all the other great qualities that go to the making of a successful minister.

In his jorunal and letters William Ellery Channing (1780–1842) writes himself almost too great a man for casual notice. His mind, unclouded by the frailties of his body, was occupied with the problems of good and evil, and the import of man's destiny. Again and again he reiterates the sentiment that health of conscience and will is the only source of inward strength and outward efficiency. He beseeches all in adversity to understand and honour themselves. He says: "An energy must be put forth from within; we must rely on our own resources; nothing can injure us but unfaithfulness to ourselves. Never lose faith in the higher purposes of your being."

Although in youth Channing's physical organisation was delicate, he was vigorous; there was nothing in his appearance that foreshadowed the wasted form, the thin face of the great preacher whose "spirit seemed about to cast aside the body." Among his playmates he was the "peacemaker;" but he gave evidence that his mildness was supported by energy,

for he once flogged a boy larger than himself for imposing upon one who was weaker. While at college, "The prevalence of infidelity imported from France," says Channing, "led me to inquire into the evidences of Christianity, and then I found for what I was made."

At the age of nineteen he entered the family of Mr. David Meade Randolph of Richmond, Virginia, as tutor. While filling this office, Channing felt deeply the cordiality and courtesy with which he was treated, and ranked high the qualities of the people among whom he was thrown. During his tutorship he toiled as he never did afterwards. In addition to his teaching, wishing to advance in his own studies, he not infrequently spent the greater part of the night over his books. Besides this eagerness for learning, he attempted to live in many respects as the Stoics. Often he slept on the bare floor, and at any hour of waking would walk about in the cold, or, troubled by the intellectual and moral conflicts through which he was passing, he slept not at all. Furthermore, ignorant of the laws of health, he put into practice certain theories about diet. Under this rigid self-discipline he became worn almost to a skeleton, and his originally fine constitution so taxed that never again did he know sound health. After his books and writings, his love of nature won for him his chief pleasure. On the banks of the James the hours slipped by in dreams and visions. Later he denounced the habit

of revery — the substituting the distant and future for the present and actual — as harmful both to the mind and the body. "Revery," he said, "was once the hector of my soul, — meditation has been its life." He found in absorbing occupation the cure for "seeking in unreal worlds what the actual world cannot give." "Thinking alone," he says, "adopts the sentiments of others into our own family."

After an absence of eighteen months the young searcher after the perfect way returned to Newport a worn invalid. Henceforth it was his destiny to labour and will under the depression of feeble health. Sickness, lasting weeks and months, often brought a gloomy pause in the work on which his heart was set, and yet to those who knew him it was a constant surprise that he accomplished so much. His own imprudence having been largely responsible for his infirmities, he faced his limitations, and endeavoured to make them the source of strength. Conscious of an inherited tendency to irritability and sternness, Channing resolved never to enter the ministry until he had gained the mastery over these propensities. In the end his triumph was complete; the beautiful serenity that came to him in his mature life was the reward of the untiring perseverance with which he at all times strove for inward strength. Those parts of his writings relating to the development of character might well form an enchiridion for both the sick and the well. To his mind life was a rich school for the

education of the spirit. "We see everywhere," he says, "the happy influences of difficulties, exigencies, hardships, and even dangers. . . . As long as we can think clearly we can carry on the great work of life. We can turn suffering to a glorious account, we can gather from triumphs over the body a new consciousness of the divinity of the spirit. . . . Life begins and ends in pain, hence pain has a great work to do. Trials bring strength, unexpected resources spring up beside unexpected obstacles." Again he says: "Amidst the multitude of objects perceived and remembered there must be selection. . . . Great objects make great minds." These, however, were not, he believed, the only ones worthy of attention. "The question is how to keep the mind open to every source of enjoyment, to the little pleasures which surround us. . . . We generally get so far absorbed in some care as to become insensible to the variety of pleasing objects. Is there not," he asks, "an easy, disengaged state of mind favourable to a succession of minute enjoyments?"

Owing to his ill health, Channing's activities were in a measure circumscribed; nevertheless his power to point the way to unexplored fields of usefulness — ways which others have followed and still are following — made him a moral force of the first order. In regard to intemperance he said: "There is a puny, half healthy, half diseased condition of the body which, by producing irritability and weakening the

energy of the will, is a strong temptation to the use of stimulants." He also emphasised what sociologists are now urging — the need of manual labour schools.

In a letter to a fellow clergyman Channing preaches a sermon that the invalid might well take to heart: "What you need, what all need, is to lay on yourself severe rules as to the distribution of time, social intercourse, and so forth. You need force of purpose, hardiness, and resolution. . . . You have not yet learned to will with that energy and fearlessness to which so many difficulties yield. Do you know how this force is to be gained? We know that exposure, exertion, and conflict with difficulties do much to give tone to the body, and so they do to the mind. . . . Resolve on the acquisition of moral energy, — and as far as you can command circumstances, place yourself where it may be won most effectually. I would not expose you very freely at first, any more than I would carry the invalid from a warm room into a piercing atmosphere. But take on yourself some good work and determine to carry it through, whether hard or easy, painful or pleasant, to the extent of your power." Morally experimental and full of hope, "Nothing characterised Channing more," says his biographer, "than the eagerness with which he greeted the advent of every newly discovered truth. He was not a watcher by the tomb, but a man of the resurrection. He lived on the mountain of hope."

Channing often wrote under great physical depres-

sion and with the sense that his force and facility of expression were inadequate to his thought. "This," he says, "is a cross I often have to bear, and yet some of my productions which have been wrung from me by painful effort in hours of feebleness have done good." It sometimes seemed as if his frail body were only kept alive by the desire to finish his work. He was convinced that regular industry gives a strength to all the virtues, and those near him were shamed by the energy which, defying hinderances, he put into his tasks. "The longer I live," he said, "the more I have to do. We live in glorious times in one respect; was there ever so much to do?" To a friend he once wrote: "You want, you say, a better body. Our comfort is, that, in wearing out this body in well doing, we are earning a better one; and perhaps the agency of the mind and of our present life in determining the future frame is greater than we imagine." "Besides," as he elsewhere says, "a man may be strong and still be a poor creature." And again: "It seems you cannot continue writing; but this will not make life useless. There is often a mysterious growth of the mind which we can trace to no particular effort or studies, which we can hardly define, though we are conscious of it. We understand ourselves and the past, and our friends and the world better. I have sometimes been tempted to think that the most profitable portions of my life were those when I seemed to do the least. There is a certain

maturity of mind, distinct from acquisitions of knowledge, which is worth all the fruits of study, and which comes we hardly know how. Perhaps I give an individual experience; but I state it because it has helped to reconcile me to inaction."

Although inclined to be sad in his early manhood, as he grew older there was a steady progress towards cheerfulness and serenity. He laid, especially, emphasis upon the value of "The natural affections." "These," he wrote, "become more and more beautiful to me. I sometimes feel as if I had known nothing of human life until lately — but so it will be for ever."

Channing believed that man is the artificer of his own fortune, and that every faithful effort has its influence. He had faith also in inspiration, "but only as a fruit and reward of faithful toil, not a chance influence out of our power." He insisted that the great work is to be done by the soul itself, and that "nothing is morally good in man but what he is active in producing." In regard to the regeneration of the character, often a necessary preliminary to the recovery of the invalid, he says: ". . . All have much to put off, to subdue, to correct, to renounce; and all have much to put on, to acquire, to cherish." In his own case, when the end came, it seemed as if he had nothing further to acquire to fit him for the immortal life he looked forward to.[1]

[1] See The Life of William E. Channing, by William Henry Channing.

The work of the landscape architect, of the florist, and of the gardener differ from most other forms of manual labour in that they occupy the mind with living things, and without demanding great strength or even continuous exertion, insure a measure of activity. Persons with even a small allowance of strength and endurance can usually perform the work of a greenhouse and much that is required in open-air gardens. This form of activity, moreover, can be successfully carried on by women as well as by men; and one may learn in the fresh air and in contact with beautiful things that life, however handicapped, is a precious gift. The address delivered by Francis Parkman (an account of whom is given elsewhere), as President of the "Massachusetts Horticultural Society," contains the following inspiring words: "You have placed me at the head of a society whose sole aim is the promotion of that gracious art which, through all time, has been the companion and symbol of peace: an art joined in closest ties with Nature, and her helper in the daily miracle by which she works beauty out of foulness and life out of corruption; an art so tranquillising and so benign; so rich in consolations and pleasures; and one, too, which appeals to all mankind and finds votaries among rich and poor, learned and simple alike. . . . It is an art based on a science, or on several sciences. When pursued in its highest sense and to its best results, it demands the exercise of a great variety of faculties,

and gives scope to a high degree of mental activity. . . . Horticulture, broadly pursued, is an education in itself, and no pursuit can surpass it in training the powers of observation and induction. The mind of the true cultivator is always on the alert to detect the working of principles and carry them to their practical application. To read the secrets of nature and aid her in her beneficent functions is his grateful and ennobling task." The care of barn-yard fowls, which in Europe has long been a favourite occupation of enfeebled persons, is also a valuable resource for those of limited strength. It has the same externising influence as gardening and the other forms of outdoor labour. It was to his greenhouse and pet animals that poor Cowper owed some of the happiest moments of his tortured life.

The career of the teacher has always attracted the invalid. But the schoolroom seems to be hardly a fit place for the physically infirm. Like savages, young people have an uncomfortable feeling when brought in contact with persons in any way abnormally constituted. Since, however, many delicate men and women are natural preceptors, both by mental endowment and the will-power they have won in the fight with ill health, they might advantageously instruct students of some maturity, — those who have acquired a soberer way of looking upon infirmity.

CHAPTER XIV

FAMILY AND SOCIAL RELATIONS OF INVALIDS

WHILE Nature's task is to heal from the cradle to the grave, parents have resting upon them the obligation to carry forward her work of restoration by securing to the invalid the conditions which will best enable him to profit by the recuperative power of the body. It has been observed that the greatest resistance to disease, after the first five years, is usually associated with the periods of most rapid growth. Such periods are the summer and fall of each year, and for boys from twelve to fifteen or sixteen; for girls from eleven to fourteen or fifteen. Both before and after these periods resistance is less strong. Furthermore, while, in the matter of disease, belief in the force of heredity is somewhat abated, the rôle of infection is enlarged, and in consequence of its potency physicians urge parents and guardians to avoid imposing their personal peculiarities or the peculiarities of their environment — such as lack of fresh air, inactivity, etc. — upon those under their charge, lest the latter become subject to the same depressing results that they themselves often

experience; results which have given rise to the notion that there is an inheritance of these artificially produced ills. Therefore the invalid youth is recommended to spend his life, as far as possible, in the open air, removed from injurious contacts, and free to follow the spontaneous motives which lead to relations with the outer world; also relieved from the excessive tax which modern education is apt to impose. Sunshine and free breathing space are often attainable in suburban places as well as in the country; for until a child is six or seven years of age a small bit of ground, if well placed, may be all that its body and spirit require. With older children a wider field is apt to be necessary. Under all circumstances, playmates are desirable in order that the young life may have the stimulus of companionship, and when these are lacking an interest in birds, plants, and animals might be encouraged.

The most difficult task in the training of an invalid youth, we are told by those of experience, is to prevent him from becoming self-regarding. In trying to accomplish this end the natural interest of the young — the channel in which the mind tends to run — should be considered. A well child may be coerced to interests without harm, but the weakling needs to have its own natural motives fostered. One of the easiest ways to awaken outside interests, because it rests on universal impulses, is, as has been suggested, through the care of animals. Boys rarely

are interested in plants; girls, however, are generally fond of them, and in the resources of a window-garden or in outdoor ground they may find access to the external life.

Where a family of children are predisposed to a common malady, it has often been found necessary to scatter them, for the tone of such a household is likely to confirm the tendency to disease, particularly in the case of consumptives. As the result of recent discoveries, less stress is now laid upon the hereditary, and more upon the contagious, nature of consumption and other diseases than was formerly the case.

With the appearance of hereditary maladies, dispersion as well as travel often affords future immunity, for the continued change of place promotes activity of body and mind, and thus tends to prevent the development of dormant troubles. To almost all invalids a change of scene is wholesome, because it not only keeps the mind from brooding, but gives a certain unexplained stimulus to the body.

As regards the life occupation of the weak and deformed, it is important that such persons should find congenial work in a field where they may be free from mortification, and their bodily disabilities as little remarked by their co-workers as possible; for the burden arising from the disfavour with which the world regards such things may be greatly aggravated by the circumstances of contact. To most

persons deformities are at first sight painful, and the judgment of another at the outset of acquaintance rests largely upon the visible presentation he makes. When the qualities of the mind are known the greater importance of these qualities enables one to see past the form and thus to become unconscious of the defect which originally may have been repulsive. Therefore in most cases the sensitive invalid will find it best to adopt some variety of occupation which will bring him in contact with those already familiar with his deformity. Where, however, his sensitiveness is not acute, it is perhaps well for him to face the criticism which his appearance awakens.

The problems of State charity are wide ranging, and to a great extent yet in debate. It is the conviction of many engaged in this field of work that its function should be limited to the supervision of such as require legal control; while those who need only fostering care — the care parents would naturally give — should be left to the charge of households or of charitable organisations, since this kind of relationship with the infirm affords to men and women an important part of their social education. At present the advance of State charity is gradually removing from society the most valuable spur to the exercise of the sympathetic motive. This evil is greatly lessened in the plan that is finding favour in the State of Massachusetts, where the tendency is to put its wards into families under careful supervision

and furnished with proper medical and surgical attention. Thus, subjected to intelligent direction and living in contact with family life, the decrepid in many instances are likely to fare better than when left in the "natural environment." Owing to his decrepitude, the invalid is, to a large extent, cut off from the great tide of life; in a fashion he is imprisoned by his infirmities. Therefore it would seem worth while to keep such persons in close relation with the natural benevolences of their fellow-beings, not only for their own sake, but even more for the finer development of those whose lot is happier. It is now urged that if the present tendency towards mechanical charity is maintained, in another century, outside of the class of professional nurses, well people will be pretty much cut off from contact with the infirm.

The education of invalids in connection with our school system is, in the opinion of eminent teachers, a subject calling for special consideration. Schools necessarily are organised with reference to youth in normal health; their plan of work, therefore, puts the invalid at considerable disadvantage. In many cases the result is an undue strain which affirms invalidism, and sometimes makes hopeless a career that otherwise might be successful. The delicate youth is not only overtaxed during the period when the restorative energies should be allowed full play, but becomes cowed by the sense of failure. This depressed condi-

tion is the most fatal of all the influences which can be brought upon the youthful or any other mind.

The evil of any school system where the work is done in classes is necessarily great. Even within the ranks of youths who may be called sound, the variety of capacity is such that the class system hinders the development of certain intelligences by too little work and harms others by requiring too much. There seems but one way out of the difficulty, and that is to make each invalid pupil, costly though it may be, a subject of special training. It is perhaps better that the schooling be limited than that the defective youth be subjected to overstrain or to depression of spirits arising from a sense of inferiority. It is a consolation to consider that a large portion of the education given to youth is by no means essential to an ample development of the mind. Indeed the greater part of that which goes under the name of education has value only as information, and comes into the class of intellectual material, which may be readily acquired outside of the schoolroom.

Whether the youth be sound or otherwise, instructors urge the importance of his attaining the power of teaching himself, of cultivating a capacity for thought on his own account, and, separated from the compulsion of the master, of developing interests which lead to individual and spontaneous growth. This course is especially necessary to those with imperfect bodies, who, to a certain extent, must be pre-

pared to work in isolation from their fellows. Our present school system, it is claimed, often leads a youth to depend upon routine and upon the stimulus of the master. It takes away spontaneity, and deadens the mind to its own natural powers. The result is that when the days of schooling are over, most persons dismiss the notion of education altogether, and seek stimulus in external activities, — such as are not bred within themselves.

If in addition to certain essential parts of education an interest in the world of nature, art, and books is developed, the person may be said to be educated, though he may never have set foot within a school. Such a youth, whatever his future occupation may be, is almost certain to become well informed. Accepting this as a basis of education, and looking upon the habit of being interested as a clue to all culture, it is evident that the schooling of invalids need not be protracted.

In the process of spontaneous development, those who have given attention to the subject recommend that the youth be brought into contact with intellectual persons, and, when possible, allowed to resort to a university for the sake of such contacts. Unhappily most of the higher schools require of those who enter their halls definite equal tasks for all, and a certain determined grade of attainment, with disgrace as the penalty for falling below that standard. Schools of the university class are beginning, how-

ever, to recognise the difference in mental power presented by different persons, and it is now possible for an earnest student, even though he works under restrictions, to obtain the peculiar advantages of university contacts. Thus many persons with limited capacity for work, without being able to acquire a degree, have secured the more substantial benefits derived from residence amid conditions favourable to enlargement.

In general, the aim to be sought in training invalids is to develop interests and awaken in the mind a sense of what constitutes true knowledge, leaving the rest to spontaneous development, since it is better that the youth retain whatever share of health may be left to him than gain knowledge at the cost of vitality.

CHAPTER XV.

NATHANIEL SOUTHGATE SHALER

WHILE this book was in the hands of the printers its inspirer crossed the great deep. Nathaniel Southgate Shaler (1841–1906), by vocation a geologist, was over and above his profession a man of such large humanitarian and intellectual interests that the variety of his outward expression filled with wonder all who knew him. Eager to know and to share in everything that noble men were thinking and doing, his mind ranged through the realm of natural and social phenomena, so that in the end his progressive attainments entitled him to be named scientist, thinker, teacher, soldier, administrator, poet, and explorer; and yet, when all is said of the brilliant manifestations of this capacious mind, Mr. Shaler's manhood was greater than his intellect, his character loftier than his achievements in the various offices which called forth his powers. The integrity of his mind and heart, his keen sense of duty, was in no way more strikingly shown than in his dealings with his body. The world at large little suspected that his seemingly superabundant vitality, his power to impart courage and strength to others, was associated with a large share of physical ills, some of which were serious,

and others, though not menacing, exceedingly annoying; indeed, it would be hard to overstate the tax which an extremely sensitive body put upon him. Although possessed of a constitution innately strong, it was seldom, even for the short period of a month, that he was free from the kind of physical burden that called for great endurance and for the resourcefulness of an exceptionally active mind.

As a child Mr. Shaler was very frail, of a delicate build, and nervous organisation. Sick headaches became his portion at an age when the spirit is entitled to be free from so great a stress. These remained with him all through life, and, ever alert to extract good out of evil, he often asserted that they had been for him a great source of education.

Early in youth malaria, among the most devitalising of maladies, laid hold upon him with a virulence and persistency that would have enervated a less valorous nature; but even then he fought physical inertia with mental energy, — this also in a way the product of the will; for, prone to revery, he put aside the futile indulgence and compelled his mind, as well as his body, to more robust tasks. Whatever the engagement might be, — whether a fencing lesson, reading with his tutor, or to take his part at a debating club of young men, — sick and feverish and against the remonstrance of anxious parents, he would meet the obligation. While his body may sometimes have suffered from this Spartan disci-

pline, his mental vigour and determination undoubtedly owed to it an increase in strength. Happily endowed with a well-natured and generous soul, it was his good fortune even in boyhood to be able to discriminate between values, moral and social, and from the inward requirements of his own being to follow honourable and worthy objects. As he grew older, suspicious of the poetic side of his nature, he mistook the fineness and responsiveness of his soul to the moving world about him for a sign of feebleness of purpose, and in consequence put upon himself a fearful pressure, exacting the last efforts of a willing spirit to meet the practical callings of life. Thus the habit of self-mastery grew, until he attained that degree of command over mind and body which made the pleadings of self-indulgence fall upon deaf ears. In all the vicissitudes of life he was ruled by an ideal existence against which everything else seemed insignificant.

Before reaching his majority, Mr. Shaler became Captain of the Fifth Kentucky Battery, and for two years served in the Federal army; at the end of that time, his health failing utterly, he gave up his command, and not long after visited Europe. While there, although often suffering acutely, in his untiring study of geology he climbed mountains, explored volcanoes, and investigated the problems of glaciers, never seeking danger, but never passing it by in pursuit of the knowledge he deemed necessary to

one of his profession. At this time he also acquainted himself with the treasures of museums and art galleries, and with the social conditions of the people among whom he was thrown; for no human interest or accomplishment could he pass by unobserved or untheorised upon. As a result of this breakdown, chronic indigestion with all its evils was for many years one of the ills he had to bear; but the sloth and complaining to which it often gives rise were swept aside by his iron will as a dead weight to energy, and relegated to the refuse heap of man's ignoble belongings. Moreover, he kept such splendid faith with his higher nature that the temptation to subterfuge and self-deception which constant physical annoyance brings were so well resisted that under the most trying circumstances he ever remained candid, true, and brave. In the course of time these qualities ranked so high with him that in comparison mere intellectual gifts and accomplishments were of minor importance. In his intercourse with students nothing irritated him more than any sign of malingering. He often rallied the sick, whom he visited with fatherly care in their rooms or at the Infirmary, upon giving way to slight ailments, and always left them with renewed faith in their power to combat physical and moral evils.

While engaged at the Museum of Comparative Zoölogy in assorting numberless specimens of fish, stored in an inferior quality of alcohol, which his

old master, Louis Agassiz, had sent home from Brazil, Mr. Shaler became in a fashion poisoned, and once more had to give up work and seek restoration of health in change of climate. At a celebrated water-cure establishment at Malvern, England, he received judicious treatment, and continued through life to use many of the devices of hydropathy. Cold-water bathing became almost a cult with him, and sun baths pleasant and soothing resources. Exercise in all weathers and at all seasons, outdoors and in the gymnasium, was not only a recreation but a physical necessity. He was persuaded that a long walk was a great moral renovater, and the best possible remedy for a clouded mind or for depression of spirits. Walking in the country on his own estate, stopping here and there to extirpate weeds, was a keen and never-failing delight. His geological excursions, in which hundreds of young men took part, led him over hill and dale, through swamps and across rivers, often taxing the prowess of men many years younger than himself. Late in life he was fond of telling the story of once having overheard two students talking together. "Where's the old man?" asked one. "Hush!" said the other; "if he hears you call him 'old man' he'll walk your d—d legs off."

Ever since the Civil War, and perhaps as a consequence of the mental strain those harassing times put upon men, Mr. Shaler suffered from a severe form of vertigo, the attacks coming at short inter-

vals, and again postponed for several months. As the cares of life pressed upon him they increased in frequency, and at the worst the sensation would be felt several times a day. This trouble he learned to endure with great patience, and often the only sign he gave of the "living death," as he called it, was an extreme pallor of the face. These seizures would sometimes come to him while lecturing, but the momentary break in thought which they caused would ordinarily pass unobserved, a little slowing of the speech being the only outward sign of the stress it put upon his mind and will.

As we have intimated, Mr. Shaler made almost a religion of fidelity to appointments. It was his proud boast that during the forty-three years he had lectured at Harvard he had never failed to be in his lecture-room five minutes before the hour. Time and again, while the victim of acute sickness, — the grippe, and other exhausting maladies, — he would get up out of his bed and go to a lecture or to a meeting where he was pledged to appear. He would even put himself to the heroic test of lecturing while undergoing the torments of a sick headache. Troubled with one of the many forms of gout, his discomfiture at times was almost intolerable, and many wakeful nights he passed on account of the pain it caused him.

Had it not been for his unflagging industry and the coercion he put upon himself, hampered as he

was by bodily ailments, he could never have performed the difficult and manifold tasks that entered into his life's work. Beginning as a Captain of Artillery, he soon passed on to the fields of learning, and in succession was Lecturer, Professor of Paleontology, Professor of Geology, and Dean of the Lawrence Scientific School; in addition he carried on alternately, or in connection with his University work, the Directorship of the Kentucky Geological Survey, the duties of Geologist of the United States Geological Survey, and of the Coast Survey; he also gave a vast amount of thought and time to the development of the Harvard Summer School. Furthermore, he was an expert in mining problems, and was actively concerned with the administration of a large mining property; and again he was a member of the Massachusetts Commissions of Highway, of Agriculture, and of Park Systems. His college work was by no means limited to the exposition of a particular branch of knowledge. Committees, administrative boards, and the arduous task of resuscitating, vivifying, and developing the Lawrence Scientific School called for a tremendous amount of obligatory and voluntary work. His personal oversight of the forty classes of young men who passed before him was a ceaseless care, involving as it did an effort on his part to get at the inner nature of the student, to understand his aspirations, and in a way to compute and help forward his possibilities. As one of his

old students has well said: "It was Mr. Shaler's distinction to prove by his example that a professor may touch life on all sides, carrying to the world the disinterestedness of the university, taking to the university the higher practicalness and vitality of the world, and teaching both that that is the true learning which most enriches life and best reveals 'come l'uomo s'eterna.'"

From youth upwards an ardent investigator of nature, which shone in his eyes like a precious stone with myriads of facets, he studied rivers, lakes, mountains, seashores, and plains, each presenting a new field for accurate research or for the play of an interpretative imagination. His writings on scientific and kindred subjects were voluminous, embracing some twenty-five volumes, while his scientific papers published in journals and his miscellaneous contributions to magazines were almost innumerable. The power to remain to the end an enthusiastic interpreter of nature and at the same time an active participator in the affairs of the world, was in part due to natural gifts and in part to a systematic cultivation of open-mindedness, of courage, and hopefulness in the face of difficulties connected with the perversities of human nature at large, and with the infirmities of his own body.

But, above all, Mr. Shaler was blessed with the temperament that could realise Dante's two beatitudes, — the active life and the contemplative life.

It was possible for him, in the intervals between lectures or other employments, whether the interval was long or short, to pick up his tablet and, according to the time, write a page or a paragraph. He was so charged with thought that his pen never lagged for the lack of ideas, and he could literally spin by the hour from the impulse his scientific inquiries gave him, or from the promptings of a vivid imagination. His soul could at all times find a retreat in the creative world, lose itself in areas of time and space far removed from what was paltry or annoying in the actual life about him. Even when suffering from extreme pain he could, by the force of his unconquerable will, lead his mind into paths of speculation concerning the nature of pain and the benefits to be had from it. Those who believed that sickness enervates the will, while in contact with him lost faith in that belief, for the impediments and discomforts of the body were set at naught in his endeavor to realise the manly existence. And so, when the final illness, that dread disease, pneumonia, fastened upon him, having so often been the victor over sickness, faith in his power to hold back even the last enemy, death, was such, that a dumb surprise at the failure of the dominant will (exerted so faithfully to aid the resources of medical skill) mingled with the grief of those who loved him; and their name was legion.

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